Asia-Pacific Security

Military Transformation

Strategic Attack

Chaplains and Commanders

Interagency Cooperation

Transportation Training

02

Autumn

TENTH ANNIVERSARY YEAR

Report Documentation Page

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A Word from the

Eisenhower with Patton and Bradley, Bastogne.

U.S. Army

Chairman

Since 9/11, the Nation has confronted one of the most demanding challenges in its history. The Armed Forces are a key instrument of national power in winning the global war on terrorism. Although the joint team has technologically superior weapons, command and control systems, and reconnaissance platforms, they owe their success to the talent, dedication, and professionalism of American men and women in uniform. The implication is inescapable: effective leadership is basic to joint warfighting.

It is constructive to reflect on leadership. I have no illusions about being a great leader; but after 37 years in the military, I have seen both some good and not-so-good leaders. I benefitted by serving on an inspector general team. During that tour, I visited various organizations, and before long I could distinguish an effective unit from a poor one within minutes, and it always came down to the issue of leadership—or sadly the lack of it in some cases.

There are many excellent books on the subject, which often go into great detail on the actions to be taken by leaders. The emphasis is on *what* leaders do. Instead of that approach, I want to focus on *how* leaders operate—the fundamental qualities of good leadership.

JFQ

PHOTO CREDITS

The cover shows *USS Higgins* firing Standard SM2 Block 3 missile during exercise in the Pacific (U.S. Navy/Rebecca J. Moat). The front inside cover features infantry advancing in Japan, Keen Sword (U.S. Army/Tyler Long); F–16s soaring over Eielson Air Force Base (1st Combat Camera Squadron/Cherie A. Thurlby); *USS Abraham Lincoln* crossing the Gulf of Alaska, Northern Edge '02 (U.S. Navy/Kittie Vandenbosh); and Marine gunnery crew, North Fuji Relocation Exercise (1st Marine Air Wing/Robert A. Kunda). The table of contents depicts *USNS Watkins* lowering ramp for first roll-on/roll-off delivery (Fleet Combat Camera, Atlantic/Aaron Peterson). The back inside captures troops boarding C–130s, Ramstein air base (786th Communications Squadron/Edward D. Holzapfel). The back cover reveals soldiers using satellite communications system, Kosovo (982d Signal Company/Jonnie L. Wright); Marine providing fire direction (Fleet Combat Camera Group, Atlantic/Michael Sandberg); airmen moving unmanned aerial vehicle, Enduring Freedom (48th Communications Squadron/William Greer); and navigator entering GPS coordinates on board P–3 aircraft (U.S. Navy/Rebecca J. Moat).

■ A WORD FROM THE CHAIRMAN

The most basic quality of good leadership is character—an individual's moral excellence and distinguishing ethical integrity. Character, above all, is what allows leaders to be entrusted with the youth of the Nation.

Many Americans, particularly baseball fans, may recall an anecdote about Ted Williams that makes this point. During one of his last seasons, the Red Sox legend had his worst year. Despite being the highest paid major league player, he hit .254, the only year he ever hit under .300. The following season, the Red Sox management sent him the usual contract for $125,000. He returned it saying that he didn't deserve it. He cut his salary 25 percent for the final year on the team—and subsequently batted a fantastic .322 to end the year.

Williams lived up to the dictum of Henry David Thoreau: "Society does nominally estimate men by their talents—but really knows them by their character." Williams was an admirable athlete with great talent—and his actions demonstrated legendary character.

Americans are not alone in recognizing character. On a recent trip, I met with the leaders of an allied nation. Of the issues that could have arisen—regional security, terrorism, interoperability, or coalition warfare—they wanted to discuss leadership. They regarded the character of leaders as essential to the strategic relationship between our two countries.

There have been many military leaders of great character. One notable example comes out of North Africa during World War II, in the initial major U.S. campaign against German forces. It was the first taste of combat for General Dwight Eisenhower. After some early success, the allied campaign bogged down against the defensive tactics of General Erwin Rommel. Many began to question Eisenhower's level of experience. Some even called for him to be replaced.

Eisenhower was not dismayed. In a letter to his son, he indicated that he would not be upset to return home and revert to his permanent rank of lieutenant colonel. If that happened, he would not consider his career to be a failure because he had been privileged to serve "with men of character." How many of us would measure our service by such a noble standard?

Leaders I've admired the most have reflected that same sense of dedication. When you find leaders with character, there is inevitably a long line waiting to follow them. It comes down to the fact that men and women are willing to follow someone they trust, someone who will treat them fairly, and someone who in turn will be honest with them.

F/A–18E aboard
USS Abraham Lincoln,
Enduring Freedom.

The spirit of selflessness is closely associated with character. One of my favorite stories in this regard is about General Henry ("Hap") Arnold. During the 1920s, General William ("Billy") Mitchell became an outspoken advocate for airpower, which eventually led to court martial. Arnold decided to testify in Mitchell's defense, despite the contrary advice of senior officers. As a result, Arnold was exiled to Fort Riley and told that he would not be selected for advanced professional military education. This signaled the end of his career as an airman.

Shortly after arriving in Kansas, Arnold was contacted by an upstart airline called Pan Am. They offered him a job—not as a pilot, but as president. Arnold faced a tough decision: to stay in the Army with no future or accept a promising business opportunity. He remained in the service. His sense of selflessness—putting the interests of the Nation and his fellow soldiers ahead of his own career—motivated him to stay. In my view, that quality of leadership was instrumental in

when you find leaders with character, there is inevitably a long line waiting to follow them

Arnold later becoming commanding general of Army Air Forces and earning a fifth star.

Loyalty is another quality of leadership and is what causes men and women to subordinate their interests to those of the organization. It is a powerful way for leaders to inspire others. It heartens troops to reciprocate and follow their leaders up the hill in a hail of bullets or through airspace filled with anti-aircraft fire and surface-to-air missiles.

During the buildup to the Gulf War in 1991, the press labeled General Colin Powell, then-Chairman of the Joint Chiefs, as a "reluctant warrior." After a particularly unflattering article was published in *The Washington Post*, the President was asked what he thought of Powell. He replied: "Nobody's going to drive a wedge between [him] and me. I don't care what kind of book they've got, how many unnamed sources they have, and how many quotes they put in the mouth of somebody when they really weren't there."

The President had iterated what those of us in uniform have long appreciated. Something

Bush and Powell, August 1990.

DOD (R. D. Ward)

that General George Patton captured when he remarked, "There is a great deal of talk about loyalty from the bottom to the top. Loyalty from the top down is even more necessary." Whether one commands a battalion, ship, or squadron, a leader should never have to apologize to anyone in the chain of command for the commitment to this quality.

> **the final quality of leadership is that good leaders delegate wisely**

Leaders must also demonstrate moral courage. It may involve professional risk to speak up and do what is right. Effective leaders do not quietly stand by and watch as their contemporaries or superiors make mistakes.

A famous instance of moral courage occurred during World War I. A young Army captain in France named George Marshall was directed to assemble a division for an inspection by General John ("Black Jack") Pershing. Unfortunately, the division was spread over 30 miles. The soldiers had to march throughout the night to reach the parade ground. Making matters worse, the field was ankle-deep in mud. The unit was dirty, tired, and ragged. Pershing was furious and proceeded to rebuke the division commander.

Marshall believed Pershing was unaware of all the facts. He stepped up and explained to Pershing why things had gone wrong. When Pershing turned to walk away, Marshall grabbed his arm and insisted on finishing the explanation. Marshall expected as a result that his career was over. But just the opposite happened. Pershing started taking him on all inspections of the troops and eventually made him his chief of staff. After all, when American lives are at stake, great leaders have little use for either yes-men or yes-women as advisers.

The final quality of leadership that I want to mention is that good leaders delegate wisely. They realize that they cannot do everything. They trust and empower their people. I see this occur every day as I count on the skills and expertise of some 1,200 talented officers, enlisted personnel, and civilians on the Joint Staff.

As one assumes senior leadership positions, this becomes readily apparent. In June 1944, after

Pershing with Marshall (in rear) sailing home.

General Eisenhower gave the order to launch the invasion of Europe, he retired to his quarters and played chess with his driver. The next morning, his aide found him in bed reading a western novel. Later, on getting an update from his operations center, Eisenhower visited component commanders and listened to their reports.

In contrast, Adolf Hitler immersed himself in tactical details. When Field Marshall Gerd von Rundstedt asked for two armor divisions as reinforcements against the Allied airborne assault, the request was delayed until it could be approved by the Fuhrer himself. Twelve hours were lost in the process. Moreover, the weather cleared during the delay, permitting the Allies to decimate German armor before it could join the battle. Hitler's distrust and micromanagement prevented his generals from accomplishing their mission.

These styles of leadership stand in sharp contrast. The Supreme Allied Commander, on the one hand, gave no orders on D-Day. Eisenhower provided guidance and then his commanders and troops did their duty. Hitler, on the other, tried to make every decision. One historian noted that this stranglehold on the German command structure was worth a king's ransom to the Allies.

There are many qualities of leadership, but the five discussed above capture the essence of a leader. Good leaders reflect such qualities in all situations, whether great or small. In the global war on terrorism, we must seize every opportunity to practice them. The challenge that we face is too demanding and the lives of those we lead are too precious to strive for anything less.

RICHARD B. MYERS
Chairman
of the Joint Chiefs of Staff

Letters . . .

JOINT COORDINATION

To the Editor—The article entitled "The Evolution of Joint Warfare" by Williamson Murray that appeared in the last issue (*JFQ*, Summer 02) might well have discussed an essential ingredient of jointness, command relationships. Rivalries among senior officers with strong personalities often muddied the waters in the past. Many were not as wise as General Winfield Scott, the canny old soldier who led the Army at the start of the Civil War. He was well versed in amphibious operations as a result of his experience during the Mexican War. In planning the expedition to seize seaports along the Carolina coast in October 1861, he instructed that a commander on land would not be subjected to orders from a commander at sea, or vice versa.

Such relations became an issue on Guadalcanal in 1942, when the amphibious force commander attempted to dictate operations ashore. The matter was resolved by senior Navy and Marine Corps commanders in the area. The Navy would remain in charge until the landing force was established under its commander. After that the landing force commander ran the show. This convention still obtains for Navy-Marine operations.

Murray does well in rehearsing the course of joint warfighting. Perhaps now he might turn his attention to a more complex subject, the evolution of combined and coalition warfare.

—Col Franklin Brooke Nihart, USMC (Ret.)
McLean, Virginia

JTF STAFFS

To the Editor—The Armed Forces invest a lot of time to train officers who, in turn, then spend years in units to become professionals. Eventually some are assigned to staffs. They might attend staff college before or early in their tours. And as they become proficient as staff officers, they may not remain equally proficient in their combat specialties.

Most staffs function pretty well on a daily basis. But when a crisis arises it may be necessary to partially gut unified and component commands to organize JTF headquarters. This process disrupts the competence of staffs while demanding much from personnel who lack the time to learn and apply joint operation planning and execution system procedures, develop relations to accomplish their tasks, and cope with routine administrative affairs.

Joint Pub 5-0, *Doctrine for Planning Joint Operations*, states that "principal players need to know what others are doing. All players need to know what is expected of them." JTF members must develop such an appreciation. That may sound like an endorsement of standing joint force headquarters, but they are not the only option. Instead of taking assets from unified commands for headquarters, it may be better to retain such organizations and, in a crisis, put routine duties on hold and refocus existing staffs. In that way relationships remain intact, which preserves organizational efficiency. JTFs do not always communicate effectively with the staffs of combatant commands.

Finally, when establishing a standing joint force headquarters, its staff should come from unified or component commands with a minimum of two years experience.

—Thomas G. Patterson
Plan and Policy Directorate
U.S. European Command

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Asia-Pacific Security

The premise of the U.S. security equation will continue to be longstanding bilateral alliances.

Counterterrorist cooperation began to trump human rights in the formulation of American policy towards Indonesia.

Because of rivalry between India and Pakistan . . . the United States has never been able to maintain close relations with both nations simultaneously.

North Korea might be leveraged to keep it from substantially exceeding its current extent of nuclear and missile activity.

A militarily formidable China would pose an expansionist threat, but there is little chance in the near to medium term that it will have the capability to dominate the region.

Operationalizing the Asia-Pacific Defense Strategy

By THOMAS B. FARGO

Commander, U.S. Pacific Command, during Cobra Gold '02.

U.S. Marine Corps (Cobra M. Jones)

The Quadrennial Defense Review and *National Security Strategy of the United States* call for transforming the Armed Forces to assure both allies and friends of our commitment to existing security arrangements, dissuade military competition, deter threats to vital interests, and decisively defeat enemies that are not or cannot be deterred. U.S. Pacific Command (PACOM) therefore operationalizes national security strategy and national military strategy with a regional emphasis. This effort requires an understanding of future

Admiral Thomas B. Fargo, USN, is the twentieth Commander, U.S. Pacific Command, and formerly served as Commander in Chief, U.S. Pacific Fleet.

USS Kitty Hawk getting underway, Yokosuka.

Fleet Imaging Center, Pacific (David A. Levy)

threats, an assessment of evolving political-military realities of the region, and a well-charted course to the future. Just as the threat has been transformed, it is also clear that capabilities, command structures, and security relationships must be transformed to guarantee the stability on which the goals of peace-loving nations depend.

The Security Context

Anticipating the changing threat and resource constraints requires a new defense planning construct—a 4-2-1 strategy—to develop forces which, besides homeland defense and maintaining a strategic reserve, can project power in four geographic areas, positioning to swiftly defeat two enemies simultaneously, and decisively defeating one of them. Three of four areas of emphasis within the strategy (Northeast Asia, the East Asian littoral, and the Middle East/Southwest Asia) fall within or bear directly on the PACOM area of responsibility.

The new security environment is likely to influence U.S. security as follows:

■ Non-state actors will become an increasing security concern. Exploiting gaps in international law and governance, they can find sanctuary behind sovereign boundaries regardless of the level of state support. Having little in common with our value systems, no sovereign territory, and a ready willingness to sacrifice human life for their cause, they are difficult if not impossible to deter.

■ The need to dissuade strategic competition and deter conflict with or between state actors continues.

■ Just as terrorism has come to be recognized as a global threat, the response to transnational problems is normally multilateral. Such threats will continue to pose immediate and recurring dangers to international stability and security due to increasingly interrelated economies and national interests.

■ Unable to challenge our military power directly, enemies will continue to attack value targets with surprise, employing asymmetric lethality.

■ The window of opportunity to detect and engage enemy targets will shorten. Therefore the requirement to rapidly validate targets and strike with precision to minimize collateral damage will grow.

■ Proliferation of missiles, weapons of mass destruction, submarines, mines, and other asymmetric capabilities, especially by unscrupulous or economically desperate nations, will continue. Emerging threats employing these technologies gain disproportionate killing power with relatively little investment in money, time, training, or infrastructure.

Allies and Friends

The premise of the U.S. security equation in the Asia-Pacific region will continue to be longstanding bilateral alliances. The most important alliance is the pact with Japan. Its self defense forces and infrastructure support have been essential to mutual security. Tokyo has also contributed generously to the global war on terrorism. Shortly after 9/11, the Diet passed legislation to provide assistance as far forward as the

northern Arabian Gulf. The relationship with Japan has never been stronger.

Similarly, sound relations with the Republic of Korea (ROK) have been the cornerstone of security on the peninsula for some fifty years. Millions of people live within 40 kilometers of the demilitarized zone. Moreover, the military-first policies and nuclear weapons program of North Korea are being pursued as its society atrophies. Pyongyang is a primary proliferator of ballistic missile technology—capabilities that threaten U.S. forces and that may soon threaten Americans at home. In spite of these developments, a strong and time-proven relationship with the South Korean government and armed forces continues to deter aggression from the North. And Seoul has made generous contributions to the war on terrorism, invoking the spirit of the U.S.–ROK Mutual Defense Treaty and providing airlift and sealift as well as field hospital support.

Australia is an old ally and special partner in the area. PACOM has worked to eliminate potential barriers, both technological and procedural, between

the Republic of the Philippines and Thailand are key to the stability of Southeast Asia

Australian and American forces. Australians have taken a lead role in East Timor, as a partner and regional leader in the global war on terrorism, and in the security and democratic development of the nations of the South Pacific. A strong and expanding relationship with Australia is fundamental to transformation efforts and continued Asia-Pacific security.

The Republic of the Philippines and Thailand are critical allies that are key to the stability of Southeast Asia. Both nations have made substantial contributions to the war on terrorism. Early in 2002, the United States responded to a request from the Philippines for assistance in developing its counterterrorist capabilities. In conjunction with Balikatan 02-1, PACOM has helped the Philippine military es-

tablish a comprehensive intelligence architecture and continues to provide training to combat the Abu Sayyaf terrorist group.

Singapore is a strategic partner and strong friend in the region with which the United States enjoys mature relations on many levels. Singapore has been active in counterterrorism, thwarting attacks and arresting some thirty suspects. It was also the first nation in Asia to join the container security initiative—a project designed to improve the safety of some 6 million shipping containers entering U.S. ports every year.

Malaysia has also arrested many terrorists and contributed in significant ways. PACOM is encouraged by the prospect of a counterterrorism training center in Kuala Lumpur. Malaysia is an active participant in humanitarian assistance, disaster relief, search and rescue, and peace operations and continues to host American troops for exercises.

In addition, the United States has a new and promising relationship with India, which is the most populous democracy in the world and a natural friend. PACOM has revitalized military-to-military security cooperation in various mutually beneficial areas. India was an early contributor to the global war on terrorism, providing essential vessel escort through the Strait of Malacca and authorizing both overflight and access to the crucial air bridge for Operation Enduring Freedom. Renewed relations with the Indian armed forces holds promise for security in the region.

Command and Control

Emerging security challenges necessitate command and control constructs that are adaptable and capable of meeting a range of threats. In operationalizing the defense strategy, joint command and control (C^2) will change. The interdependent relationships between unified commanders and the countries of the region must be selectively nurtured without being constrained by sentiment or Cold War inertia. In this respect, joint command and control is undergoing a transformation.

Established with specific geographic focus, subunified commands under PACOM exercise operational command and control of assigned commands within their respective operational areas. Command structures such as U.S. Forces Korea and U.S. Forces Japan have served the region for fifty years, organized for specific conflicts. In continuing to seek C^2 efficiencies, adjusting to changes in the operational environment, and benefiting from technologies that extend the operational reach of the unified commander, these organizations will evolve accordingly.

The Quadrennial Defense Review called for a look at the standing joint task force (SJTF). This organization can act as operational testbed, exploiting asymmetries for "significantly greater military capability at lower personnel levels." The concept is enabled by joint command, control, communications, computers, intelligence, surveillance, and reconnaissance (C^4ISR) architecture, dynamic training and exercise programs, and standard operating procedures. These tools provide a common operational picture and the tactics, techniques, and procedures for mission planning and operations across the conflict spectrum. Commander, U.S. Pacific Fleet, has been designated as head of Joint Task Force 519, a mobile, tailorable SJTF that can respond to major conflicts in the region. It has a standing componency and thus benefits from habitual relationships with common operating procedures which are routinely tested and improved in exercises. Other JTFs in the area will be commanded by regional three-star officers as appropriate.

The SJTF organization evolved from work produced under the maturing joint mission force (JMF) program, the centerpiece C^2 initiative that is fundamental to change management. JMF is a capabilities-based package of 20,000 people drawn from designated component ready forces, augmented by supporting component commands, coalition partners, and a coordinated group of information operations/nongovernmental/private volunteer organizations from which a commander

Filipino forces combatting Abu Sayyaf rebels.

AP/ Wide World Photo (Aaron Favila)

can assemble tailored forces for a variety of missions. Jumpstarted with a core joint team known as a deployable JTF augmentation cell, JMF turns a single subordinate command headquarters into a trained and mission-focused joint warfighting team that is ready and capable of accomplishing smaller scale, mission-specific contingencies. An element of the JMF concept is linking potential missions to a subordinate three- or four-star command based on core competencies, operational strengths, and theater force posture. This is intended to provide a natural fit for a commander with minimal force augmentation from other subcomponents. The joint mission force suite includes forcible entry, strikes and raids, deterrence options, sea lines of communication protection, foreign consequence management, peace operations, noncombatant evacuation operations, and foreign humanitarian assistance/disaster relief.

Prior to 9/11, PACOM leveraged the power of joint interagency cooperation through Joint Interagency Task Force-West (JIATF–W), the Pacific counterdrug task force. In the aftermath of the terrorist attacks, it took the joint interagency C^2 structure to a new level by forming the Joint Interagency Coordination Group for Counterterrorism (JIACG/CT). The mission of the group is fusing interagency capabilities into operations to destroy terrorism in the Pacific theater. Starting from a nucleus of personnel from across the PACOM staff, the group has called on select expertise from civilian agencies including the Central Intelligence Agency, Federal Bureau of Investigation, National Security Agency, Treasury Department, Defense Intelligence Agency, Defense Threat Reduction Agency, and National Imagery and Mapping Agency. Taken together

this offensively oriented, premier C^2 element serves to synchronize and operationalize the theater counterterrorism campaign plan, shortening the intelligence-to-action response time by fusing information relevant to an emerging threat and rapidly coordinating military or civilian responses.

A second approach developed after 9/11 for antiterrorism/force protection (AT/FP) is the joint rear area security coordinator program. PACOM implemented a structure to facilitate coordination and establish unity of effort among command components, local, state, and Federal agencies, host nations, and in some instances commercial resources to secure infrastructure, assets, and support personnel. Consisting of geographically focused C^2 cells in Guam, Hawaii, Alaska, Japan, and Korea, these defensively oriented elements serve as quick response cells to assess and implement force protection measures in the Pacific.

U.S. Pacific Command

Established in 1947, U.S. Pacific Command (PACOM) has an area of responsibility that contains over 50 percent of the surface of the globe and 43 nations. In addition, the six largest militaries in the world (China, India, North Korea, and South Korea, Russia, and the United States) operate in the Asia-Pacific region.

The United States maintains five of its seven worldwide defense treaties with countries of the region: U.S.-Republic of the Philippines, ANZUS (U.S., Australia, and New Zealand), U.S.-Republic of Korea, South East Asia Collective Defense (U.S., Australia, France, New Zealand, the Philippines, and Thailand), and U.S.-Japan.

Major command exercises include Team Challenge (Australia, the Philippines, Singapore, and Thailand), linking three bilateral exercises: Tandem Thrust (Australia), Cobra Gold (Thailand), and Balikitan (the Philippines); Keen Sword/Keen Edge (Japan); and Rim of the Pacific (Australia, Canada, Chile, Japan, South Korea, and the United Kingdom). PACOM has participated since 1996 in disaster relief operations in China, India, Indonesia, Japan, Laos, Madagascar, Myanmar, Palau, the Philippines, South Korea, Thailand, Vietnam, and the U.S. Territory of Guam.

Some 100,000 military personnel are forward deployed in theater with 300,000 members overall in the region. Component commands include U.S. Army Pacific, Marine Forces Pacific, U.S. Pacific Fleet, and U.S. Pacific Air Forces. In addition there are five subordinate unified commands: U.S. Forces, Japan; U.S. Forces, Korea; Eighth U.S. Army; Special Operations Command Pacific; and Alaskan Command; two standing joint task forces: Joint Interagency Task Force West and Joint Intelligence Center Pacific; and three supporting units: Asia-Pacific Center for Security Studies, Joint Intelligence Center Pacific, and Center of Excellence in Disaster Management and Humanitarian Assistance Studies.
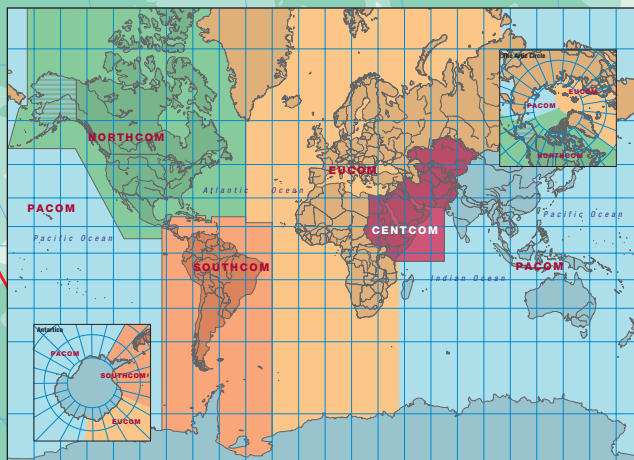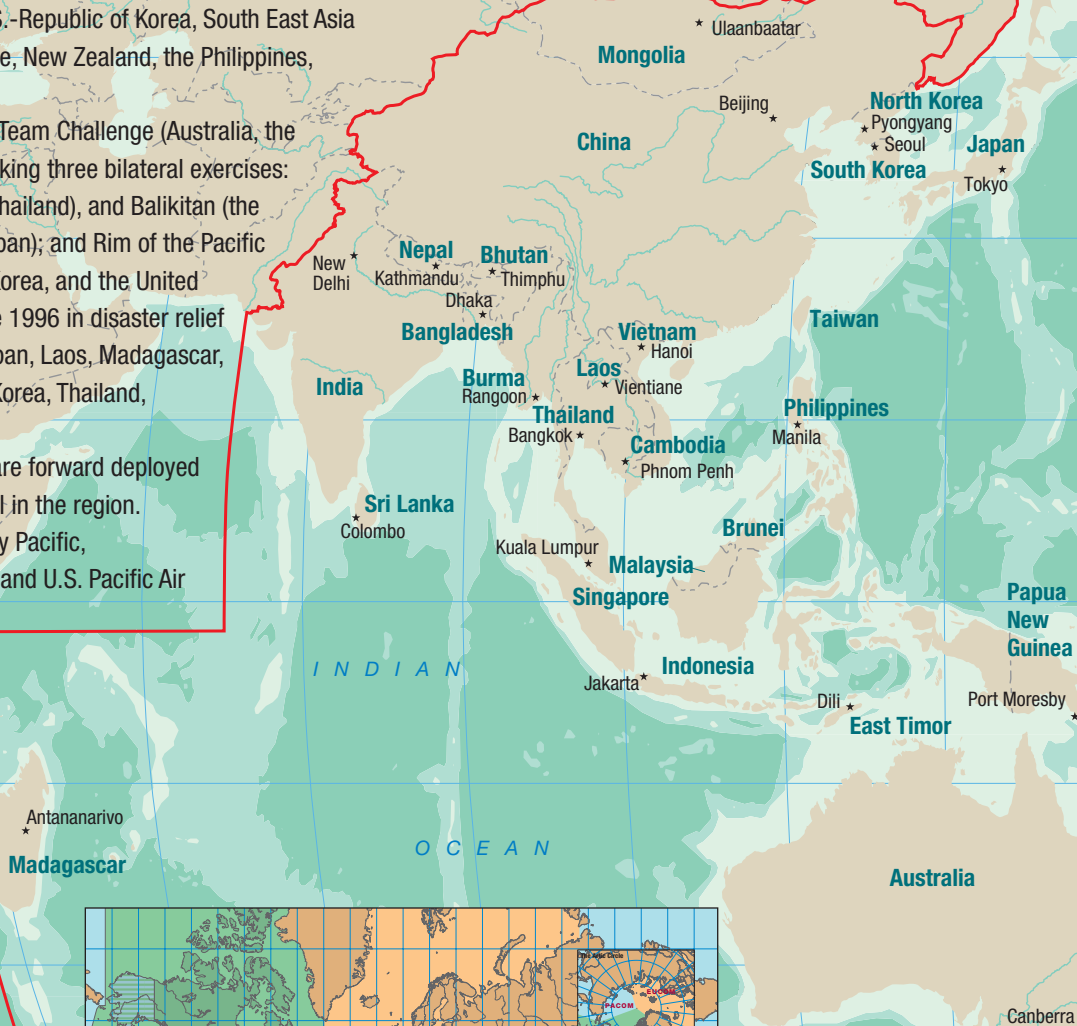
USS O'Kane **during RIMPAC '02.**

Fleet Combat Camera Group, Pacific (Ted Banks)

F–16 over Alaska, Northern Edge '02.

1st Combat Camera Squadron (D. Myles Cullen)

The PACOM area also includes: Comoros, Cook Islands, Kiribati, Maldives, Republic of Marshall Islands, Mauritius, Federated States of Micronesia, Nauru, Niue, Republic of Palau, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

Koreans providing security, Foal Eagle '02.

55th Signal Company (Vincent A. King)

P A C I F I C

O C E A N

Marines and Filipino soldiers, Balikatan '02.

3d Marine Division Combat Camera (Shane A. Austin)

Fiji

New Caledonia

American and Singaporean divers, CARAT '02.

U.S. Navy (Michael A. Harrar)

*Wellington

New Zealand

Australians with Marines, Millennium Dragon '02.

1st Combat Camera Squadron (John Houghton)

Thai marines landing from U.S. amphibious assault vehicle.

3d Marine Division (Antonio J. Vega)

Force Posture

The 4-2-1 construct has obvious planning implications and requires the improved speed, precision, and lethality of transformed forces. PACOM must position credible combat capability as far forward in theater as possible. Taking advantage of improvements in command and control, mobility, and lethality allows the command to streamline its forces and reduce adverse impact on allies while maintaining combat power westward. The transformed forces must communicate both improved capability and continued commitment to allies and friends.

The command is homeporting three freshly overhauled and refueled nuclear-powered attack submarines in Guam. Regular deployments of bomber, fighter, and intelligence, surveillance, and reconnaissance assets to Guam or other locations are being considered. Refueled submarines and deployed bombers are not transformed forces in their own right. However, when employed with new operational concepts, they represent a significant move of rapidly available, flexible combat power westward as part of overall transformation.

Korea has enacted a plan to position U.S. forces in proximity to likely areas of employment

As PACOM moves forces west, it must ensure that the logistic infrastructure supports rapid and sustainable employment while minimizing its footprint. Streamlined command structures and improved information reachback capabilities, such as those provided by a new air operations center at Hickam Air Force Base on Oahu, will relieve pressure resulting from the burgeoning population in the region. Already this is an issue of concern in both Korea and Japan. For example, the Republic of Korea has enacted a land partnership plan to position U.S. forces in proximity to likely areas of employment while consolidating American facilities. By 2011 the U.S. military will release over half of its holdings of 55,000 acres and 500 buildings, valued at over $1 billion, in exchange for access to 1,200 new acres and more ranges. The plan also establishes safety easements around some facilities to reduce untoward interactions. Similar initiatives are underway in Japan under a special action committee on Okinawa.

Access and Logistics

The requirement to project combat power forward is growing and calls for reliable access to suitable locations. The theater security cooperation program plays a major role in providing access while improving common defense arrangements and coalition competence. As before, places that provide access to support security cooperation, training, and joint operations are most relevant.

Singapore, for example, sits at the junction of the Singapore and Malacca straits—the most crucial waterway in the theater. Singapore is a great supporter of U.S. presence within the region, hosting a modest logistic presence that was established after Philippines bases closed and a port facility was built at Changi to accommodate aircraft carriers. Access to the port at Sembawang and Paya Lebar airfield have long been key enablers to regional security and were stops in the logistic bridge for Enduring Freedom. PACOM is studying other ways to improve access while incorporating other transformational improvements.

Retaining a combat edge requires training and facilities to permit realistic training profiles. PACOM is a steward of the environment and shares an interest in achieving security mandates without any harm to people and ecosystems. These goals will be met by both leveraging access and applying creative technology to gain combat-relevant training.

Flexible Capabilities

Unable to specify future threats with certainty, PACOM is instead focusing on the manner in which threats might subsist, execute strategies, and employ developing capabilities. Existing assets must be adapted to improve future relevance, and evolving capabilities must be tailorable to the manner (if not timing or location) in which an enemy may threaten us. Many transformation goals hinge on the combined future lethality of U.S. and coalition forces. We must also help allies build capabilities to enhance their contributions to their own security, which has a complementary effect on footprint consolidation, and ensure that the capabilities they bring to the fight marry well with future U.S. capabilities.

Increasing reliance on accurate and timely information has been reemphasized in Enduring Freedom and is particularly crucial in light of emerging dangers. Future threats employing stealth and surprise will attempt to exploit gaps in intelligence coverage and establish tactical ambiguities to complicate responses. Furthermore, worldwide demand for information requires intelligence assets

Singaporean L–30 taking off from Korat, Thailand.

4th Combat Camera Squadron (Jeff Clonkey)

with increased joint utility. Intelligence collection, analysis, and dissemination capabilities (including bilateral and multilateral sharing constructs) must be expedited, with authority to act on validated information pushed to the lowest possible level. In the new security context, intelligence of offensive value will be crucial. However, there will still be a premium on defensively oriented intelligence that directly enables force protection.

The nature of future threats and unacceptability of absorbing a debilitating first strike dictate the requirement to minimize the interval between threat detection and response. Further, the shooter must be provided with the right information to minimize ambiguity and make sound engagement decisions. Eliminating unnecessary infrastructure between sensor and shooter can help—on land, in the air, or in space. Arming the sensor and maximizing the time it spends in range of potential targets can reduce the sensor-to-shooter cycle time. This capability was seen in unmanned combat aerial vehicles over Afghanistan and more recently in Yemen. Global Hawk or other systems may also play a similar role in the future, operating from Guam or perhaps Australia.

Conversion of some *USS Ohio*-class ballistic missile submarines to cruise missile/Special Operations

Forces carriers (SSGNs) are examples of capabilities that position major firepower and forces forward in theater on a survivable, long-dwelling platform. Acting either alone or as part of a tailored expeditionary strike group, SSGNs hold great promise.

The proliferation of ballistic missiles demands an effective theater missile defense capability. Secure, mobile, and enhanced by joint intelligence, such a defense is vital to security and stability throughout the region, particularly Northeast Asia. The capability to deal with short range ballistic missiles is a particularly high priority.

For forces and matériel not prepositioned forward, the capability to move them quickly to the battlefield must be improved. One initiative is the high speed vessel, which was recently tested in Millennium Challenge '02 and proven while in support of III Marine Expeditionary Force and Australian-led coalition operations in East Timor. A joint, reconfigurable high speed vehicle could enhance response time with a range of forces. The considerations relevant to this joint capability include service ownership of the program, asset disposition, and command and control.

The Army Stryker is a highly deployable combat vehicle that combines firepower, battlefield mobility, situational awareness, survivability, and versatility with fewer logistic demands. The Stryker brigade combat team will

add a capability to joint forces, especially in the Pacific. Flexible transportation and sustainment are key to its quick operational employment. Thoughtful lift posture, such as the C–17 aircraft or the high speed vehicle forward in theater, can make the brigade a very attractive option.

Improved network capacity and security enclaves are top information needs. Initiatives that address the shortfall are the wide area relay network (WARNET), combined operations wide area network (COWAN), and joint information capabilities enhancement environment (JICEE). JTF WARNET ensures a high capacity on the joint tactical level via satellite and nonsatellite airborne relay communications, while COWAN promises to share information among coalition partners of differing interests on a common network. Both are critical to agile command and control.

Combatant commanders, working with the Joint Staff, must provide a framework that will enable technology to proffer solutions that maximize operational effectiveness and combat power. The global information grid is a good start, but it needs more rigor to integrate service-developed solutions into a coherent infrastructure for network centric operations. PACOM has developed an information capabilities framework to map solutions on the grid and align systems through JICEE.

theater security cooperation embraces efforts to address issues of common interest

This will bring C⁴ISR systems into the command headquarters building as a pilot program.

Advanced concept technology demonstrations offer a streamlined process for linking joint operational requirements with technological advances. With capabilities-based demonstrations and evaluations, technological innovation and commercial products are focused on their military utility to provide quantum improvements in warfighting. PACOM sponsors 19 demonstrations, several of

Australian peacekeepers in Dili, East Timor.

AP/ Wide World Photo (Jon Hargest)

which are showing operational utility today in support of Enduring Freedom.

Operating Concepts

New flexible capabilities must be integrated into meaningful operating patterns and concepts. PACOM will develop new concepts forward and in concert with allies.

Theater security cooperation embraces defense and defense-related efforts conducted with allies, friends, and potential coalition partners to both build mutual capabilities and address issues of common interest. Unlike past emphasis on broad-based engagement, recent guidance calls for combatant commanders to develop and implement a more focused strategy. In this regard, theater security cooperation is the vehicle to establish favorable conditions for future operations, whether to support the war on terrorism or longer-term objectives such as interoperability, transformational capabilities, and hedges against surprise. PACOM is pursuing an integrated, iterative approach to theater security cooperation in which support activities are linked with clearly defined objectives to facilitate the operational focus.

The joint training plan provides guidance for planning, executing, and assessing training in the theater. This plan specifies improvements in joint and combined readiness while facilitating transformation and security cooperation. In practice it follows the tenets of joint training, uses the joint mission essential task list assessment methodology for exercises, integrates the most likely and dangerous missions, and seeks to optimize joint and multinational training opportunities with emphasis on identifying and resolving interoperability issues.

The joint operations and experimentation program provides another venue for change. By leveraging joint warfighting concepts, doctrinal innovations, and new technology in an operational environment, PACOM can benefit from improved operations while eliminating the gap between innovative ideas and operational utility. The task of transformation is urgent. There is neither the time nor money to pursue programs that fail to yield dividends. Particular relevance can be found in those activities that fall within the nexus of all the initiatives.

A number of operating concepts under development promise to demonstrate utility in each program. In addition to the joint mission force, new concepts include the Navy and Marine Corps expeditionary strike force and the Air Force air and space expeditionary force. Capabilities like the Stryker combat vehicle lifted by C–17 aircraft or high speed vessels, submarine conversions, Patriot advanced capability 3 systems (and ultimately Aegis-based theater ballistic missile defense squadrons), bombers, and ISR deployments must be integrated into these concepts. As these concepts mature, however, the missions for which they are intended must be well defined and incorporate sufficient flexibility to accommodate shifts in enemy capabilities. The effects created on future battlefields must drive capability development, not the reverse. Furthermore, the logistic infrastructure for sustainability must be synchronized for joint missions.

Coordination among the services, defense agencies, and unified commands has never been more crucial. Combatant commanders bear a major responsibility to define missions in their areas with a high degree of relevance. Evolving C^2 relationships must have a global impact. The ability to shift between supported and supporting roles—especially for U.S. Pacific Command in relation to U.S. Strategic Command and U.S. Special Operations Command—must be seamless.

U.S. Joint Forces Command (JFCOM) is the premier experimentation and transformation command. PACOM serves as one of its field surrogates, providing ideas, forces, and the theater as a testbed. And cooperation with the Office of Force Transformation and JFCOM must promote efficient experimentation and testing while producing reliable and timely feedback.

Acquisition programs must maximize rather than marginalize contributions by allies. With other nations, informed dialogue, experimentation, and working relations will identify cooperative efforts to enhance capabilities, promote access to fulfill commitments, and develop competencies. Allies will assume even greater shares of their own

F–15 over Alaska during Northern Edge '02.

1st Combat Camera Squadron (Charie A. Thurlby)

defense burden through flexible expeditionary forces, diversified access, consolidated footprints, credible infrastructure, and improved interoperability. Such advances will allow PACOM, as part of a team, to project combat power forward, maintain host nation relations, and deal with economic realities.

For combatant commanders, the challenge of transformation is clear—make the operational link between national strategy and tangible regional security improvements by leveraging advances in technology and empowering force innovation. Strategic guidance directs operational endstates, and supporting objectives lead to measurable progress.

The PACOM focus ensures that the right things are done at the right time and for the right purpose. Integrated efforts that improve command and control structures, update plans, enhance forward force posture and access, transform capabilities, and integrate those capabilities into new operating patterns and concepts provide vehicles for effecting meaningful change. **JFQ**

National Interests and Mil-to-Mil Relations with Indonesia

By J O H N   B.   H A S E M A N

Marine conducting weapons familiarization.

AP / Wide World Photo (Guntur Alphin)

The military-to-military relations pursued by the United States and Indonesia in recent years resemble a roller coaster ride. The ups and downs have reflected divergent priorities, which in turn reveal shifts in the strategic environment, international economic integration, and national politics. Issues have ranged from Cold War policy and human rights to counterterrorism, and from political isolationism and economic disaster to a refusal to understand American imperatives.

Relations are often influenced by short-term trends and political correctness, not underlying national interests. The deliberate prioritization of single issue politics by the United States came at the expense of integrated policies toward Indonesia. Today both parties appear to be moving from a breach in

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The Indonesian Archipelago

military-to-military relations to a cautious policy of reengagement.

National Interests

Indonesia is important for a number of reasons. It is the fourth most populous nation after China, India, and the United States. In the new world environment it assumes greater significance as the largest and most moderate Muslim country. Its sheer size makes it an important market for international trade and investment. Its location between Asia and Australia and between the Pacific and Indian Oceans could create bridges or barriers to global communication. Since the downfall of Soeharto in 1998, it is struggling to become the third largest democracy in the world.

The United States is vital to Jakarta as well. It is a prime destination for exports and source of foreign investment as well as development capital, either bilaterally or through the

American role in international financial institutions.

There is also a symbolic tie between these two multiethnic nations. The United States was a champion of Indonesian independence from the Netherlands after World War II. For this reason and other factors, both countries need relations that are healthy, balanced, and mutually respectful. The military-to-military aspect of that relationship is especially critical because of the role played by the military in Indonesia as the single most effective and strongest element of society. But for over thirty years bilateral relations have risen and fallen according to short-term political priorities.

Strategic Imperatives

The United States and Indonesia had parallel though not congruent strategic imperatives in the last half of

the 1960s and most of the 1970s. Their military establishments held center stage in defining respective national interests. Military-to-military contact flourished. Other issues did not infringe on that relationship in the case of either country.

In the 1960s, the United States was fully engaged in both Vietnam and a broader policy of winning the Cold War. As part of that strategy, Washington sought advantages around the world, forging close relations with democracies and dictatorships if such links would ultimately contribute to its strategic goals. It was essential to have as many friends as possible in Southeast Asia—either through formal military agreements or relations short of formal treaties—to prevent the expansion of Soviet, Chinese, or Vietnamese power and influence.

These American goals matched Indonesian strategic imperatives. During the mid-1960s the military took center

Indonesian antiterrorism exercise.

AP/Wide World Photo (Tatan Syuflana)

stage after an obscure army officer, Major General Soeharto, rose to power by countering a coup by the *Partei Kommunist Indonesia,* or Indonesian Communist Party. While this period remains somewhat ambiguous in light of more recent developments, at the time the situation was clear: Soeharto and the army mobilized the nation to crush the communist movement, removed the first president, and began 32 years of the New Order autocracy.

Indonesia needed all the assistance it could get to modernize its armed forces

Indonesia needed all the assistance it could get to modernize its armed forces, then largely equipped by the Soviet Union. The defeat of the largest communist party outside the Sino-Soviet bloc made Jakarta a natural candidate for military cooperation with Washington. Although Indonesia conducted its foreign affairs as a nonaligned nation, it was closely tied to the United States and the West through economic, political, and defense policies.

The partnership worked. Indonesia used Western-trained economists to repair its shattered economy. It brought about political stability through a highly-structured de facto one-party system and the overwhelming presence of security forces. The army modified its *dwi-fungsi* policy,

which grave it both a defense and social/civic mission, into a tool of control over most aspects of society. The shift from communist dominance of the largest nation in Southeast Asia and southern flank of the region to a nonaligned but pro-Western state enhanced the U.S. strategic situation.

With Soeharto entrenched as a nonaligned but friendly leader, Washington engaged a range of available security arrangements. Military assistance, foreign military sales, and excess defense articles programs provided all kinds of matériel, from uniforms and individual items of equipment to armored vehicles, ships, and planes. The international military education and training (IMET) program trained thousands of personnel from noncommissioned officers to generals.

Between 1966 and 1981, Indonesia acquired *USS Claud Jones*-class destroyers; landing ship tanks; F–5 and OV–10 aircraft; most of its fleet of C–130s; tanks, armored personnel carriers, and reconnaissance vehicles; a major communications network; and transport vehicles. From 1978 to 1981, it received more training dollars than any other nation while sending hundreds of officers to U.S. courses annually. America trained *Angkatan Bersenjata Republik Indonesia* (ABRI)—the

Indonesian military—in the use of new weapons systems and upgraded intelligence. It was the most comprehensive period of military engagement, particularly for weapons transfers.

Mutual Interests

Indonesia started to have second thoughts about close military ties with the United States. Its leaders counseled restraint, and its army strongman instituted a policy that amounted to learn, but don't copy. General Leonardus Benyamin ("Benny") Moerdani was one of the most powerful, charismatic, and influential officers in the military. In the 1960s, he jumped into West Irian to harass Dutch forces; his advance to the top of ABRI appeared preordained. By the 1980s he controlled the intelligence apparatus, and leadership of the Armed Forces Strategic Intelligence Agency (BAIS) made him second only to President Soeharto. But Moerdani was wary of the close ties with Washington and counseled backing away from the United States.

His influence held sway throughout the 1980s, when he served as head of BAIS and then as ABRI commander in chief. For ten years, contact between the U.S. and Indonesian militaries declined precipitously compared to the previous 15 years. Virtually all mobile training teams were directly related to major weapons purchases. Navy visits were almost unknown.

The 1980s also witnessed change in the IMET program. Student selection policy, which American officers close to Indonesia felt was the most critical component of the military-to-military relationship, was modified. Many students had been selected for their ability and achievement, assuring that the best and brightest future leaders went to the United States. Under Moerdani, the emphasis changed to comparative study, by which officers who graduated from Indonesian schools attended American courses to determine their content and applicability for professional military education in Indonesia. This policy took the best and brightest out of consideration for U.S. schooling because promising officers did not want to forego career-advancing assignments. Thus the typical student changed from being a

Briefing on P–3 capabilities.

front-runner for leadership to a professional educator—an important contact, but hardly a way to get to know the future leaders of the armed forces of another country.

This new policy was designed to isolate Indonesian officers from the frustration and envy of exposure to sophisticated weaponry which they could not afford. It recognized that American doctrine and strategy were inappropriate but revealed a lack of faith in the ability of officers to filter out unneeded information while improving ABRI professionalization. Many analysts suggested that Moerdani did not want young officers exposed to concepts like civilian control of the military and democracy in a culturally diverse society.

Though personal military-to-military contact declined in the 1980s, the overall relationship remained good. Free and low cost equipment under the military assistance program had ended, but a booming economy provided funding for the acquisition of major systems such as F–16 fighters, which entered the ABRI inventory in 1989 after several years of planning and negotiation.

Indonesians were frustrated by limitations imposed on them. Many mid-level officers who trained in the United States during the heyday of IMET between 1975 and 1981 bided their time and awaited advancement in rank for an opportunity to exert influence on military policy.

Americans also chafed under restrictions enacted during the Moerdani era. As its economy developed, Indonesia became more important as a regional power. Its strategic location, markets, investment potential, and moderate voice in a growing non-aligned movement made it a major target of American influence, including by the U.S. military. But the 1980s was a decade of little contact with few potential Indonesian leaders attending military schools in the United States, no in-country training teams or exercises, and no naval visits.

Changing Perceptions

Military relations became a priority in 1990. Moerdani had been unceremoniously removed from his position

for criticizing the family of President Soeharto. Mid-ranking Indonesian officers whose contact with the U.S. military had been restricted in the 1980s began assuming top posts in the armed forces. They quickly implemented a long-repressed ABRI desire for more contact with America. And, as promised, they began making changes.

U.S. Pacific Command (PACOM) was also anxious to revive professional ties with ABRI. After the loss of naval and air facilities in the Philippines, the command policy of places-not-bases put a high priority on Indonesia.

From 1990 to 1992 the United Stakes and Indonesia conducted dozens of exercises, visits, and other exchanges between their senior military leaders. Every service was involved in areas of mutual interest from computerized gaming for the Indonesian army command and staff school to free-fall parachuting. Americans reveled in the chance to train in a new environment. Indonesians gained confidence when they found they could train as well as their counterparts.

Ship visits expanded, and Indonesia opened its shipyard in Surabaya for en route repairs to American vessels. Senior officers visited headquarters, combat units, schools, and academies. On the strategic level, when Jakarta volunteered the largest national con-

New leadership, June 2002.

AP/Wide World Photo (Muchtar Zakaria)

U.S. Pacific Command policy of places-not-bases put a high priority on Indonesia

tingent for U.N. peacekeeping operations in Cambodia, the U.S. Air Force moved one of its armored cavalry units to Cambodia. Both Indonesians and Americans expressed pleasure at the broadly developing relationship, which improved the professionalism and contributed to national and regional objectives in the process.

By the end of 1991 the relationship was progressing on a high level. Although the pace of acquisition had declined because of Indonesian funding constraints and phase-out of military grant aid by the United States, a steady series of mobile training teams, subject matter expert exchanges, ship

visits, and enrollment in respective staff colleges provided ample opportunities for personal and professional contact between the two countries.

East Timor

Indonesia opened East Timor to the outside in 1988, believing it had sufficiently repressed the decades-long Fretilin insurgency and could withstand domestic and international scrutiny. On November 12, 1991 troops fired on unarmed demonstrators at a cemetery in Dili. Hundreds were killed or wounded, and the tragedy was filmed by Western journalists. The so-called Dili incident became the primary cause for a decline in the bilateral military relationship and in 1999 led to the East Timorese largely voting to seek independence rather than regional autonomy.

A government investigation contradicted the initial military announcement of 19 fatalities in Dili, estimating that fifty had died, while the East Timorese and foreign human rights organizations put the number at more than two hundred. The army appointed an honor council to investigate. For the

first time, ABRI probed the chain of command in East Timor and punished or forced into early retirement five levels of officers, including the military regional commander and a two-star general who had freed a hijacked Garuda Indonesian airliner in Bangkok a decade earlier.

However, the military refused to confirm the number of casualties at Santa Cruz cemetery. The damage to its credibility became an irritant in country-to-country relations. Muted international criticism of the military role in East Timor, which Foreign Minister Ali Alatas had once described as "a pebble in Indonesia's shoe," turned into loud and persistent condemnation of the human rights record in the former Portuguese colony.

Congress halted IMET funding in 1993, ending perhaps the most effective way to influence Indonesian officers on the role of the military in society, civilian control of the armed forces, and professionalism (no IMET alumni were implicated in the Dili incident). Although limited funding continued for several years, the long history of U.S. training and education was on the wane.

Using operational funds not constrained by Congress, PACOM maintained programs that yielded reduced but key contacts. American officers

U.S. readiness training in East Java.

AP/Wide World Photo (Guntur Alphin)

visited Indonesia and their opposite numbers attended seminars in Hawaii and met with the PACOM leadership. Training enabled the command to keep in touch with counterparts through the 1990s. But the curtailment of education and training was profound, ending attendance at courses in the United States by future ABRI leaders.

But the worst was yet to come. After the events surrounding the fall of President Soeharto, whose rule began in economic turmoil and ended amid economic and political turmoil, the quixotic vice president-turned-president, B.J. Habibie, made a snap decision to give a choice to East Timor of regional autonomy or independence. It was a bad decision, reached without consulting most of his government

and based on years of faulty intelligence that predicted that the Timorese would not exchange their heavily subsidized status for independent penury.

the ill-conceived operation to frighten East Timor ended half a century of fruitful contact

In August 1999, despite months of harassment by military-backed militia, 80 percent chose independence.

There ensued a scorched-earth campaign that was even more brutal than activities waged by militias before the voting. Carefully planned, it featured standard tactics used in black operations over the years. But by then

U.N. personnel and foreign observers with cameras and camcorders, cellular phones, and the internet, as well as a willingness to speak out, revealed the callousness of the campaign and support of the armed forces. International condemnation was swift. Denials were met with open disbelief, and disrepute enveloped the military establishment.

Congress immediately canceled the IMET program, the President halted military sales, and PACOM ended training. Except for diplomatic contact in Jakarta, military-to-military relations stopped. The ill-conceived operation to frighten East Timor into remaining part of Indonesia, and the out-of-control vengeance that followed, ended half a century of fruitful contact.

Single-Issue Policy

The violence perpetrated in East Timor during 1999 had smaller versions elsewhere. The troubled province of Aceh in far northwestern Sumatra has been convulsed by separatists bent on independence and a military determined to maintain national unity, particularly after the loss of East Timor. Sectarian and ethnic violence flared in many areas where pent-up emotions constrained by Soeharto were vented in tragic ways. Civilian casualties numbered in the thousands. The military, smarting from domestic criticism for past human rights abuses, was criticized both for failing to act strongly enough against perpetrators of violence and for being too fierce when it did act.

Meanwhile, Indonesia was dealing with political and economic challenges in its transition from autocracy to democracy. Poised to become the third-largest democracy in the world, Jakarta was receiving U.S. assistance to help its institutions assume a more effective role. Help flowed to most groups except the military. Widely seen as the most powerful, disciplined, and organized of the nation's elites, the armed forces received virtually no tangible encouragement.

The forces of the largest and most moderate Muslim country became an important player in the global war on

terrorism after 9/11. Counterterrorist cooperation began to trump human rights in the formulation of American policy toward Indonesia. Once again effective military-to-military relations became important to U.S. objectives.

Plans disclosed by the Bush administration in August 2002 and legislation approved by the Senate Appropriations Committee reveal that the United States is planning to provide $50 million to the Indonesian police and armed forces between 2002 and 2006. Almost all the funding will go to the national police to upgrade their ability to combat terrorism through better intelligence, education and training, and equipment and facilities. The largest amount of approved funding, $12 million, is earmarked for a counterterrorism unit. Another $4 million in 2002 funds is intended for training and $31 million will be provided in FY03 and FY04 for training and modernization.

Although the police were a fourth branch of the armed forces prior to 1999, legislation and policy prevented using military assistance programs for constabularies, a reaction to human rights atrocities in Latin America. Undertrained, underfunded, and undermanned, the national police are woefully unprepared to assume an internal security mission.

The assistance for the police stands in stark comparison to programs for *Tentara Nasional Indonesia* (TNI)—Indonesian National Defense Forces.[1] A compromise has been forged between senior administration officials seeking a full restoration of military ties and a gradual approach that respects human rights. Yet the level of assistance is modest and reflects continuing discontent with a lack of progress on human rights accountability and military behavior in Indonesia.

In a visit to the region in August 2002, the Secretary of State said that the United States is:

starting down a path to a more normal relationship with respect to military-to-military [cooperation with Indonesia]. *We are not there yet but we are starting.* [Congress] *is watching carefully and expecting action to be taken with respect to past abuses. . . . Much more will have to*

happen in the months ahead as we watch the performance of the TNI and as we make sure that problems that appeared in the past, where accountability has still yet to be placed, will be dealt with. We will measure this and this will assist us in taking the case for further support to our Congress.

Legislation before Congress includes revised conditions to be met prior to restoring military ties. Whereas the Leahy amendment had eight conditions, the new act contains three that must be satisfied before sales of weaponry and full military assistance funding is extended.

The conditions remain focused on accountability for past human rights abuses. If enacted by the Senate and House, the legislation requires the President to certify that progress is being made in three areas. First, the Minister of Defense must suspend military personnel regardless of rank who were "credibly alleged" to have committed, or aided militia groups that committed, gross human rights violations. That has never happened, although some personnel were forced from the military after judicial proceedings or internal investigations.

The government, with the cooperation of the military, must prosecute and punish the guilty parties in order to meet the second condition. This stipulation was clearly made with an eye toward ongoing human rights proceedings in Jakarta. Unfortunately, prosecuting the most egregious cases has been extraordinarily and perhaps deliberately inept. The first trials found the former governor of East Timor guilty of not controlling subordinates but found all military and police defendants not guilty. These results bode ill for future military assistance.

A third condition calls upon the Minister of Defense to make the TNI budget—including its huge business empire—open to public scrutiny. Although the military is making its internal budget process more transparent, the details of its business dealings are closely guarded secrets.

The administration has provided $4 million (out of a total of $17 million) in fellowships for counterterrorism training and education. These

funds have been approved by Congress and are not subject to Leahy amendment restrictions. The first five participants will attend a 15-month course at the Naval Postgraduate School. The training fits the challenging domestic security environment faced by Indonesia, which includes separatist movements in Aceh and Irian Jaya and a profusion of religious and ethnic conflicts across the archipelago. The proposed legislation would make up to $400,000 available for IMET participation. This will be the first time since 1999 that Indonesia is receiving funds for this program.

Washington apparently hopes that a major assistance program for the Indonesian police and the possibility of a similar program for the armed forces, together with resumption of international education and training and counterterrorism fellowships, a lowered barrier in budget reforms, and accountability for past human rights abuses, will encourage the military to continue reforms. Then the two countries can normalize military-to-military relations including arms sales. The Indonesian navy and air force are in a very precarious state because of an inability to procure spare parts.

It remains to be seen whether human rights trials can meet congressional requirements and a more transparent TNI budget system can be implemented. But repairing the military-to-military relationship between the United States and Indonesia sooner rather than later will serve the interests of both countries.   **JFQ**

N O T E

[1] Beginning in the 1960s, the armed forces were called Angkatan Bersenjata Republik Indonesia (ABRI). After the downfall of Soeharto, the national police were removed and the military was symbolically renamed Tentara Nasional Indonesia (TNI). Both abbreviations are used here depending on the period.

Fighting Terrorism, Avoiding War
The Indo-Pakistani Situation

By PETER R. LAVOY

**Meeting of the twain
in Wagha, India.**

for cooperation with India and Pakistan during Operation Enduring Freedom. But several subsequent developments, some quite disturbing, ensure that South Asia will remain critical for years to come. They include the presence of the Taliban and al Qaeda militants in Pakistan and possibly Kashmir, anti-American and anti-national terrorism in both nations, turmoil in the disputed state of Kashmir, and a potential for nuclear conflict between India and Pakistan. On a more positive note, Washington has improved its political and military relationships with New Delhi and Islamabad, which has raised expectations.

Because of rivalry between India and Pakistan, which began with their independence from Britain in 1947, the United States has never been able to maintain close relations with both nations simultaneously. India drifted between nonalignment and an outright alliance with the Soviet Union, while Pakistan was a staunch American ally in the fight against communist expansion. When the United States moved closer to India after the Sino-Indian conflict in 1962 and again during the 1990s following the breakup of the Soviet empire, its relations with Pakistan waned. Today the challenge is translating increased influence in both New Delhi and Islamabad into tangible results in the war on terrorism, stabilizing Indo-Pak competition, and promoting other American interests throughout the region.

After languishing for five decades as a region of only marginal importance to the United States, South Asia became a major area of interest for U.S. defense planners after 9/11. The cause of this turnabout was a need

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Pakistani pointing to line of control.

AP/Wide World Photo (Roshan Mughal)

Quetta and Peshawar, and demoting other senior officers associated with the Taliban.

The Bush administration has gone to great lengths to support the efforts to maintain internal stability and implement political and economic reforms in Pakistan while assisting coalition forces. Washington has been criticized at the same time for not providing sufficient assistance to Pakistan for its crippled economy and military, which is half the size of the Indian armed forces. In reality the economic benefits have been substantial: waiving sanctions imposed after the nuclear tests in 1998 and the coup in 1999, rescheduling some of the $38 billion in external debt, and allocating over $2 billion in economic support and security assistance, including a $600 million economic support grant, $30 million in agricultural support, and $75 million in foreign military financing.

America has not yet offered the kind of military assistance that many expected (including F–16 sales, which were terminated in 1990 because of concern over nuclear nonproliferation) because it does not want to irritate India and because it wants to develop mutually agreeable terms for future arms transfers. But the Under Secretary of Defense for Policy, who led a 44-member defense cooperation group team on a visit to Islamabad in September 2002, confirmed that military assistance and arms sales would be restored to help Pakistan modernize its armed forces, especially air defense. This group, which met for the first time since 1997, also agreed on steps to enhance bilateral ties, including education and training, resumed exercises, and enhanced cooperation in countering terrorism.

Indo-American Cooperation

The support offered to the United States after 9/11 was no less remarkable. India, which had refused to be drawn into military entanglement with the superpowers and opposed American presence in the region for decades, suddenly extended military

Enduring Freedom

The campaign to deny Afghanistan as a haven for terrorists and crush the al Qaeda network had a dramatic impact on Pakistan, the closest foreign partner of the Taliban. Pakistan had helped consolidate their power during the 1990s. Viewing the Taliban as a friendly if fanatical regime that could stabilize unruly tribes while providing strategic depth, Islamabad was loathe to see a return to insecurity on its western flank. But faced by intense pressure from Washington, President Pervez Musharraf agreed to break ties with the Taliban, provide basing and overflight for coalition forces, deploy troops along the Afghan border, and share intelligence on terrorist groups. In announcing this controversial policy reversal on September 19, 2001, Musharraf stated that taking any other course would risk unbearable losses for Pakistan by threatening its economy, long-term interests in Kashmir, and strategic capabilities.

Though most mainstream Pakistani political parties upheld the decision to aid the coalition, Islamic factions responded in outrage. Some two

dozen religious parties joined in the Pak-Afghan Defense Council to oust Musharraf. Strikes were called, several people were killed, and extremists went to Afghanistan to fight with the

the Bush administration has gone to great lengths to support internal stability in Pakistan

Taliban. Yet these actions did not incite the nation against the government or persuade the government to reverse its decision on Afghanistan.

The president faced another threat from within his military government. Believing that he had sold out to Washington, hardline officers in the army and intelligence service were reluctant to disengage from Afghanistan and provided incomplete or misleading information. Musharraf faced being ousted by pro-Taliban officers who were instrumental in the coup that brought him to power and held senior posts in the armed forces and intelligence service. He moved to counter this threat, sacking the intelligence chief and deputy chief of the army staff, changing commanders in

Indian operations against infiltrators.

AP / Wide World Photo (Aijaz Rahi)

facilities and full logistic and intelligence support. This change in policy was based largely on a calculation that the war on terrorism could hinder Pakistani support for insurgents in Kashmir. The United States did not accept the offer of Indian bases because of a decision to use bases in Pakistan and wanted to avoid making cooperation with the coalition more difficult for Islamabad. But Washington regarded this demonstration of support as part of a growing accord in Indo-American strategic interests. Earlier, in May 2001, the Indian government had unexpectedly supported the U.S. missile defense initiative. Americans had also become aware of opportunities that defense cooperation offered for contingencies in Asia and the Middle East. When President George Bush met with Prime Minister Atal Bihari Vajpayee in November 2001, conditions were ripe for

developing strategic cooperation. While visiting Washington, the Indian leader spoke of the two countries as natural allies.

This atmosphere of partnership found expression in the revitalized bilateral defense policy group. At a meeting in New Delhi in December 2001, agreement was reached on an unprecedented agenda of military-to-military cooperation, exercises and training, resumption of defense trade, and enhanced policy coordination. The armed forces of the two countries also began regular executive steering group meetings to plan and review the details of rapidly expanding cooperative activities. Convening in May 2002, the group approved a number of items, including training and exercises, accelerated arms transfers, and technical cooperation in research, development,

and production. It also sought to improve consequence management for weapons of mass destruction, humanitarian relief, cyberterrorism, and environmental security.

Terrorism in South Asia

Increased incidents of terrorism occurred in South Asia after the U.S.-led coalition initiated the war against the Taliban. Violence was recorded in Kashmir as well as other parts of India and Pakistan. In October 2001, 31 were killed and 60 were injured when militants detonated a bomb in the legislative assembly of Jammu and Kashmir at Srinagar. A Kashmiri terrorist group claimed responsibility. Two months later, an unidentified group conducted an attack in New Delhi, which ended in the death of 13 terrorists and security personnel. Vajpayee blamed the affair on Pakistan-based

Indian and Pakistani Missile Ranges

Source: U.S. Department of Defense, *Proliferation: Threat and Response* (Washington: Office of the Secretary of Defense, January 2001), pp. 37 and 40.

militants and demanded that Islamabad clamp down on terrorists operating from its territory. To intensify the pressure on Pakistan, Vajpayee recalled the Indian high commissioner and other diplomatic personnel from Islamabad, suspended trade, halted travel across the border, and banned Pakistani aircraft from Indian air space. He also ordered a massive mobilization, deploying more than 600,000 troops to positions along the line of control in Kashmir and the frontier in Gujarat, Rajasthan, and Punjab. Significantly, he took the unprecedented step of moving forces from the border with China to face Pakistan.

In response Musharraf ordered his forces to mobilize and enacted tough measures against extremism at home. With U.S. officials joining the call for firm action against militant movements, authorities arrested two thousand religious extremists and suspected terrorists, including leaders of Lashkar-e-Tayyiba, Jaish-e-Mohammed, and three other groups. Musharraf also announced steps to control *madrassas* (religious schools that breed extremism), freeze assets of suspected terrorists, close down Inter-Services Intelligence (ISI) offices in Pakistan-controlled Kashmir, initiate police reform, improve immigration policies, and draft antiterrorist finance laws.

Even as Musharraf cracked down on domestic Islamic militancy, he insisted in a speech in January 2002 that

Pakistani *Ghauri* missile.

AP/Wide World Photo (B.K. Bangash)

the nation would continue to support the cause of Kashmir diplomatically and morally, which Pakistanis see as a long-term freedom struggle of Kashmiri Muslims against India. By contrast, most Indians believe that this and other insurgencies in their country are fueled—if not guided—from across the border in Pakistan. Another suicide attack occurred in May 2002 against families of Indian soldiers in Jammu. Officials blamed Lashkar-e-Tayyiba and Jaish-e-Mohammed and claimed that Pakistani ISI was involved. According to India, Musharraf was secretly directing militant activities in Kashmir or else the violence was perpetrated by rogue elements in his military and intelligence organizations. In either case, the Indians planned to intensify the military pressure until all manifestations of cross-border terrorism were halted.

Pakistan also has been the site of violent terrorist attacks, raising concerns that Musharraf lacks control over the extremists. An explosion at the American consulate in Karachi in June 2002 killed 12 Pakistanis. FBI investigators blamed the event on Lashkar-e-Omar, a coalition of militant groups banned in January 2002. This and other incidents, including the bombing of a church attended by foreigners in Islamabad, attacks on French naval engineers in Karachi, a missionary school in Murree, and a foreign-supported eye clinic in Taxila,

and the murder of a reporter from *The Wall Street Journal*, are all seen as elements in a plot against the Musharraf government as well as U.S. and foreign interests. These events, and subsequent arrests by Pakistani and American authorities, indicate that remaining Taliban militants and some members of al Qaeda have shifted their locus of operations from Afghanistan to Pakistan.

Given the exodus of terrorists from Afghanistan, Pakistan assumed a

the prospect of conflict increased dramatically after the attack on the parliament in New Delhi

more crucial role in Enduring Freedom. By October 2002, Pakistani and coalition forces had conducted 99 raids on suspected al Qaeda positions. In addition, 420 suspects were apprehended and 332 were handed over to the United States for interrogation, including Abu Zubaida and Ramzi bin Al-Shaiba, the latter believed to be involved in planning the 9/11 attacks. Pakistani troops have conducted numerous raids in remote tribal areas in the Northwest Frontier Province, marking the first time outside forces have conducted military operations in this largely self-governing territory.

Military Tension

The prospect of conflict between India and Pakistan increased dramatically after the attack in December 2001 on the parliament in New Delhi and

the mobilization on both sides of the border. The Indians asserted the right to take every step necessary to stop terrorism, including hot pursuit into Pakistani-controlled Kashmir. Islamabad indicated that it was prepared to go to war. Though both countries had mobilized during previous crises in 1987 and 1990, the scope of mobilization in 2002 was unprecedented. For the first time since 1971 they were actually poised to fight. Indian and Pakistani strike forces were activated, ammunition was moved to the front, and landmines were deployed. It was reported that India had moved *Prithvi* short-range ballistic missiles to the border. The Indians tested a mid-range *Agni* 1 missile, and as war loomed the Pakistanis test-fired a mid-range nuclear capable *Hatf* 5 (*Ghauri*), a short-range *Hatf* 2 (*Abdali*), and a *Hatf* 3 (*Ghaznavi*) ballistic missile. Musharraf, in an interview with *Der Spiegel*, warned that his nation was prepared to use nuclear weapons in the event of hostilities.

As war seemed more likely, President Bush dispatched both the Deputy Secretary of State, Richard Armitage, and the Secretary of Defense, Donald Rumsfeld, to the region. Before leaving, Rumsfeld voiced concern that the threatened war could involve nuclear weapons. He added that even if these weapons were not used, a conventional war would set both countries back years in economic terms and in their relations with the world community. And it would prevent Pakistan from effectively monitoring its border with Afghanistan and clamping down on extremists at home. According to Rumsfeld, "anything that distracts them from helping us in the global war on terror and trying to finish the job in Afghanistan . . . is notably unhelpful to us."[1]

Just when hostilities looked inevitable, Musharraf pledged to Deputy Secretary Armitage on June 7 that Pakistan would permanently stop infiltration by militants across the line of control into Indian-controlled Kashmir. Tensions abated, but forces were not pulled back. The Indians waited to see if infiltration actually diminished.

They also wanted to ensure that state elections in Jammu and Kashmir scheduled for September 2002 took place. Pakistan also went to the polls in October. Although violence and irregularities marred both elections, and Pakistan chose to go ahead with tests of the *Hatf* 4 (*Shaheen* 1) ballistic missile, after the elections Vajpayee ordered Indian troops to withdraw from the India-Pakistan border to peacetime locations, but not from the line of control because he claimed that infiltration into Kashmir was continuing.

When Pakistan followed suit by withdrawing its own troops, the threat of war diminished and the economic drain on both nations ended. The National Security Advisory Board in India estimated in a briefing to the National Security Council prior to the withdrawal that the ten-month mobilization cost $370 million. Pakistani mobilization was probably less expensive, though it surely had a proportionately larger effect on a fragile economy.

The Nuclear Danger

The latest standoff between India and Pakistan cannot be reckoned in financial terms alone. If war had broken out, the death and destruction would have been enormous. If the conflict had gone nuclear, the human toll would have been horrific. The Defense Intelligence Agency estimated that there could have been 17 million casualties, not including deaths from starvation, radiation, or fires after the initial blasts. Rumsfeld shared that assessment with Indian and Pakistani leaders during his visit. Even though tension eased considerably before the Secretary arrived, the leaders of both countries continued to treat their nuclear weapons and missile programs as national priorities.

India and Pakistan are self-declared nuclear powers. Neither are signatories of the Nuclear Nonproliferation Treaty. India conducted its first nuclear test in May 1974, which it described as a peaceful nuclear experiment. Both nations demonstrated their capabilities in a series of explosions during May 1998. New Delhi claimed to have detonated a 12-kiloton fission device, a 43-kiloton thermonuclear device, and three sub-kiloton devices.

USS Rueben James with Pakistani ship, Inspired Siren '02.

U.S. Navy (Aaron Ansarov)

Later the same month, Islamabad declared that it had responded with six explosions of its own, detonating what nuclear officials described as one big bomb and five low-yield weapons.

India and Pakistan possess stockpiles of nuclear weapons components and could assemble and deploy several within a week. The size, composition, and operational status of these arsenals are guarded secrets, but sufficient information exists in the public domain to make estimates. Assuming the Cirus and Dhruva research reactors yielded 25–40 kilograms of plutonium annually, India could have stockpiled 280–600 kilograms of weapons-grade plutonium by the end of 2002.[2] Although there is also a program to produce highly enriched uranium, it is unclear if India has managed to produce weapons-grade material. Experts have determined that as little as 5 kilograms and as much as 7 kilograms of plutonium would be required for each weapon. Assuming the worst and best cases, the Indians could possess enough

fissile material for 40–120 weapons, with 70 as the median estimate.

Unlike the Indian nuclear program, which relies on plutonium, the Pakistani effort is based on highly-enriched uranium. Presuming that the Kahuta plant yields 80–140 kilogram of weapons-grade uranium per year, at present Pakistan could have 815–1,230 kilograms available for weapons production. The amount required is thought to be 12–25 kilograms, depending on design. Also, the unsafe-guarded heavy-water research reactor at Khushab produces plutonium that could be reprocessed to make a few weapons annually. When the potential inventories of plutonium and highly-enriched uranium are added together, Pakistan could have enough fissile material to make 35–95 weapons, with 60 as a median estimate. (Indian and Pakistani material and weapons are summarized in table 1 on page 33.)

Both nations have various aircraft and ballistic missiles that could deliver nuclear weapons. The United States determined in 2001 that India would most likely use fighter bombers for delivery since its ballistic missiles were

Indian *Agni* 2 missile.

AP / Wide World Photo (John McConnico)

probably not ready. While several different aircraft could be used, the most suitable are Jaguars, Mirage-2000s, MiG–27s, and Su-30s. The Indians have deployed short-range *Prithvi* 1 missiles capable of projecting a 1,000-kilogram warhead, which presumably is the maximum size of a nuclear device. But because of the restricted range of the *Prithvi* missile, India is most likely to employ either the new solid-propellant *Agni* 1, which has a 700–900 kilometer range and was rushed into development after the Kargil conflict in 1999, or the *Agni* 2, which has a 2,000–3,000 kilometer range, when they become operational.

Pakistan has placed a premium on acquiring ballistic missiles to offset conventional military threats and ensure reliable delivery of nuclear weapons. While its F–16 and Mirage 5 aircraft are probably nuclear-capable, liquid-fuel *Ghauri* missiles developed with North Korean assistance and solid-fuel *Shaheen* 1 and 2 missiles which were fielded with Chinese help are more likely choices. (Delivery systems are described in table 2.)

Vajpayee has said that India is pursuing a minimal but credible nuclear deterrent and will not be the first to go nuclear. A government panel

the Indian defense minister broached the possibility of absorbing a nuclear strike

drafted new doctrine in August 1999 that called for a nuclear triad of land, sea, and air capabilities, a sound command and control system, and the flexibility to rapidly shift from peacetime deployments to full operability to ensure the effectiveness and survivability of the nuclear deterrent. India subsequently reiterated its credible minimum deterrent doctrine and revealed the creation of a national command authority, in which a political council, chaired by the prime minister, would be responsible for authorizing the use of nuclear weapons, and a strategic forces command would manage strategic forces.

Pakistan accepts the possibility of going nuclear first. Preventing India from threatening national viability has been central to its nuclear policy for

decades. As Prime Minister Zulfiqar Ali Bhutto said in 1974, "Ultimately, if our backs are to the wall and we have absolutely no option, in that event, this decision about going nuclear will have to be taken." More recently, a senior officer reportedly stated that nuclear weapons would be used only "if the very existence of Pakistan as a state is at stake. . . . Nuclear weapons are aimed solely at India." If deterrence failed, nuclear command authority likely would consider their use if India:

■ attacked Pakistan and conquered a large part of its territory
■ destroyed a large part of either Pakistani land or air forces
■ proceeded to the economic strangling of Pakistan
■ pushed Pakistan into political destabilization or created large-scale internal subversion.[3]

At the height of the 2002 crisis, the Indian defense minister broached the possibility of absorbing a nuclear strike by Pakistan and retaliating in kind. Musharraf affirmed: "Nuclear weapons are the last resort. I am optimistic and confident that we can defend ourselves with conventional means, even though the Indians are buying up the most modern weapons in a megalomaniac frenzy. . . . If Pakistan is threatened with extinction, then the pressure of our countrymen would be so big that [the nuclear] option, too, would have to be considered."[4]

Because of a growing dependence on the part of India and Pakistan on nuclear weapons for deterrence, it would be difficult to disagree with the Director of Central Intelligence:

The chance of war between these two nuclear-armed states is higher than at any point since 1971. If India were to conduct large scale offensive operations into Pakistani Kashmir, Pakistan might retaliate with strikes of its own in the belief that its nuclear deterrent would limit the scope of an Indian counterattack.[5]

Table 1. Indian and Pakistani Nuclear Weapon Capabilities								
	Weapons-Grade Plutonium (kg)			Weapons-Grade Uranium (kg)			Weapon Capability		
	Low	Medium	High	Low	Medium	High	Low	Medium	High
India	280	400	600	unknown	unknown	unknown	40	70	120
Pakistan	5	15	45	815	1020	1230	35	60	95

Table 2. Potential Indian and Pakistani Nuclear Delivery Capabilities

	Range (hi-lo-hi)	Source	Status and most recent test
Indian Aircraft			
Mirage-2000H	1,205 km	France	2 squadrons, 35 planes in inventory
Su-30 MKI	3000 km	Russia	50 planes purchased, 18 in inventory
Jaguar S(I)	850 km	Britain/France	4 squadrons, 88 planes in inventory
MiG–27 ML	500 km	Russia	214 planes in inventory
Indian Missiles			
Prithvi 1 (SS–150)	150 km	indigenous	army version, in service
Prithvi 2 (SS–250)	250 km	indigenous	air force version, tested, in development
Prithvi 3 (*Danush*)	350 km	indigenous	navy version, failed test in 2000, in development
Agni 1	700–900 km	indigenous	tested January 2003, in development
Agni 2	2,000–3,000 km	indigenous	tested in 1999 and 2001, in development
Agni 3	3,500–4,000 km	indigenous	in early development
Pakistani Aircraft			
F–16 A/B	925 km	United States	32 planes in inventory
Mirage 5 PA	1,300 km	France	50 planes in inventory
Pakistani Missiles			
Hatf 1	80–100 km	indigenous	in service since mid-1990s
Hatf 2 (*Abdali*)	180 km	indigenous/China	tested May 2002, in production
Hatf 3 (*Ghaznavi*)	290 km	indigenous/China	M–11, tested May 2002, in service
Hatf 4 (*Shaheen* 1)	600–700 km	indigenous/China	tested October 2002, in service
Hatf 5 (*Ghauri* 1)	1,300–1,500 km	indigenous/North Korea	No Dong, tested May 2002, in service
Hatf 5 (*Ghauri* 2)	2,000 km	indigenous/North Korea	No Dong, tested April 2002, in development
Hatf 6 (*Shaheen* 2)	2,000–2,500 km	indigenous/China	not yet tested, in development

Source: This information is compiled from *Jane's Sentient Security—South Asia; Jane's All the World's Aircraft; Jane's Strategic Weapon Systems*, and various media reports.

Because any serious regional crisis has the potential to escalate to conventional and then to nuclear warfare, the United States must remain deeply engaged in the strategic and political affairs of South Asia long after the Taliban and al Qaeda are destroyed.

The events of 9/11 brought India and Pakistan to the fore of U.S. national security interests and also precipitated significant changes in the region. It is unlikely that either New Delhi or Islamabad will be able to resolve their mutual difficulties without assistance from Washington. America will be expected to play an active role in helping both countries in countering terrorism, reducing the danger of nuclear war, and promoting the social, economic, and political wellbeing of a large portion of the world population. The close relationships with India and Pakistan will offer the United States a unique, albeit brief, opportunity to meet this challenge. **JFQ**

NOTES

[1] "Secretary Rumsfeld Meeting with *The Washington Post* Editorial Board," June 3, 2002, http://defenselink.mil/news/Jun2002/t06042002_t0603edb.html.

[2] All estimates are derived from David Albright, *India and Pakistan's Fissile Material and Nuclear Weapons Inventory, End of 1999* (Washington: Institute for Science and International Security, October 11, 2000), http://www.isis-online.org/publications/southasia/stocks1000.html.

[3] "Nuclear Safety, Nuclear Stability and Nuclear Strategy in Pakistan: Concise Report of a Visit by Landau Network-Centro Volta," http://lxmi.mi.infn.it/~landnet/Doc/pakistan.pdf.

[4] Roger Boyes, "Musharraf Warns India He May Use Nuclear Weapons," *Times Online*, April 8, 2002, http://www.thetimes.co.uk/article/0,,3-260481,00.html.

[5] George J. Tenet, "Worldwide Threat: Converging Dangers in a Post 9/11 World," Testimony before the Senate Armed Services Committee, March 19, 2002.

Contending with a Nuclear-Armed North Korea

By HENRY SOKOLSKI

AP/Wide World Photo (Kim Kyung-hoon)

Since North Korea moved to resume plutonium production, admitted to having a uranium bomb program, and declared its right to possess nuclear weaponry, the United States has faced three issues in dealing with Pyongyang: limiting the instability that may result

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from its nuclear program, preventing its action from encouraging proliferation by other states, and urging its regime to disarm voluntarily. A review of the North Korean weapons program and nonproliferation violations, how its nuclear capabilities might increase, and the risks of cutting a new wide-ranging nuclear deal can suggest what Washington must do to neutralize the severity of this threat.

Let's Make a Deal

Nuclear activity by North Korea dates back to the 1960s. But most analysts believe that its weapons program began in earnest in the mid-1970s, after America caught South Korea trying to build a nuclear weapon. Washington persuaded Seoul to end its effort and calmed fears over the prospect of withdrawing U.S. troops. Pyongyang's nuclear weapons effort was not discovered as quickly. It was not until the early l980s that satellites detected construction of a military production reactor in Yongbyon.

That discovery prompted a flurry of diplomatic activity. Washington consulted Moscow; Moscow consulted Pyongyang; and finally the first nonproliferation deal was struck in 1985. The North Koreans signed the Nuclear Nonproliferation Treaty (NPT), prohibiting the acquisition of nuclear weapons and requiring International Atomic Energy Agency (IAEA) inspections. Russia, in exchange, offered to sell North Korea light-water power reactors. It took only a year and a half

Constructing light-water reactor, North Korea.

AP/Wide World Photo (Ahn Young-joon)

for the deal to be circumvented. Instead of allowing inspections to start 18 months after signing, as required under the treaty, Pyongyang took ad-

during 1997 and 1998, intelligence indicated that Pyongyang was working on covert nuclear sites

vantage of the miscommunications and delayed them for another five years. Meanwhile, the military production reactor was completed and activated in early l986—again without permitting IAEA inspections.

In a belated effort to address these transgressions, the United States and its allies persuaded North Korea in late 1991 to sign a joint denuclearization declaration with the South. It prohibited either nation from building uranium enrichment or plutonium chemical separation plants. America removed its tactical nuclear weapons from the peninsula to help seal the deal. But this accord fared no better than others. As is now known, Pyongyang began operating a chemical reprocessing plant at Yongbyon before the ink was dry. When North Korea allowed the inspectors access in 1992, it was caught lying about the amount of weapons grade material that had been

produced. Finally, in 1993, with enough separated plutonium on hand for one bomb, according to CIA estimates, in the form of a nuclear weapon—Pyongyang blocked further inspections and announced it was withdrawing from the Nuclear Nonproliferation Treaty.

At this juncture, the United States proposed the Agreed Framework, its fourth nuclear deal. To avoid cheating—and to extend international adherence to the Nuclear Nonproliferation Treaty at an upcoming 25-year review—the Clinton administration was solicitous. Acceding to a demand by Pyongyang for two modern reactors, the President promised in late 1994 to provide nuclear energy and annual heavy fuel oil shipments equivalent to ten times the amount of power that North Korea might have produced had all reactors under construction been completed. In exchange, Pyongyang agreed to freeze work at plutonium producing facilities and comply with NPT obligations when the promised U.S.-designed reactors were half complete.

Despite the terms, Pyongyang chose not to comply. Within 24 months, American intelligence determined that North Korea had built one or possibly two nuclear weapons. This fact was known to the administration, which nevertheless insisted that the deal eliminated the threat.

During 1997 and 1998, however, intelligence sources indicated that Pyongyang was testing high-explosive implosion devices and working on covert nuclear sites. Hectored by Congress and leaks, the administration cut another deal with North Korea. After over a year of consultations and the promise of some half a million tons of food aid, Clinton sent experts to a suspect nuclear site. In the interim, however, the press reported that satellite photographs documented equipment being removed from the facility. When the site was finally inspected, nothing was found.

One of 12 sites the intelligence community failed to convince the White House to have opened for inspection by Pyongyang was Mount Chun Ma, which a defector to China

North Korean Missile Ranges

alleged was processing uranium. Finally, in March 1999, the intelligence community reported that the North Koreans were developing a covert uranium enrichment program, probably with help from Pakistan.

Several months later Congress acted again, requiring certification that Pyongyang was not secretly enriching uranium before America provided more fuel oil. Citing a lack of clear evidence, Clinton requested a waiver. That drew congressional protest, but construction of the two promised reactors—which could each produce enough weapons-grade plutonium in their first year of operation for over 50 weapons—continued, as did fuel shipments. Undeterred, the White House considered a possible missile deal with Pyongyang and even a Presidential visit.

With the arrival of the Bush administration, dealmaking seemed to be at an end. Promoters of the Agreed Framework soon sensed that the White House lacked a clear alternative to bribery. Was the continued stifling of IAEA inspections by Pyongyang a violation of the agreement? The engagement faction said no, while critics of the Clinton policy said yes. In the end, nothing was decided.

The unexpected occurred in December 2001 when an intelligence report revealed that one or two nuclear weapons had been produced by North Korea in the mid-1990s. Buried in a document submitted to Congress on missile development, this finding

turned attention to a disturbing issue: assuming that Pyongyang had weapons and was hiding them in violation of the deal made in 1994, could it be conducting a covert program? The response was that North Korea may have a program but, since a national intelligence estimate had not been requested, there was no definitive answer. Supporters of the Agreed Framework knew the truth but feared that it would end the accord. But when North Korea was named as a member of the Axis of Evil, supporters went on the defensive. Following internal debate, critics prevailed and the intelligence community was formally asked for an estimate. When evidence was produced, Pyongyang made an angry admission to cheating.

Reassessing the Threat

Most backers of the Agreed Framework insist that the United States continue to support that agreement. They are anxious about undermining the freeze on declared plutonium production facilities. Without this restraint, they argue that Pyongyang might make fifty or more weapons per year. Given the admission by North Korea that it already has plutonium weapons and is working on uranium weapons, critics of the accord have questioned the importance of reinstating the freeze. Two important details that emerged from the CIA after North Korea's nuclear confession suggest that this assessment is wrong, at least for the next five years.

U.S. and Asian intelligence agencies suspect that Pyongyang has already built between one and five plutonium weapons. Without the plutonium freeze, North Korea could make perhaps five more from the spent fuel on hand and also produce an additional weapon each year (estimates assume five kilograms of plutonium per weapon). Only if Pyongyang completed two other reactors—50- and 200-megawatt plants—could it produce substantially more plutonium, possibly more than required for fifty weapons each year (assuming reactors operated at near-capacity), according to the Central Intelligence Agency. Operated at 70 percent of capacity for 300 days each year, plants could produce enough plutonium for about 35

Delegates meeting at truce village.

AP/Wide World Photo (Reuters)

the extensive range arcs of the most advanced missiles, constitute an arsenal that will force the United States and its allies to defend not one or five, but scores of targets.

The other difficulty with relying on a continued plutonium freeze to arrest the North Korean nuclear threat is that it does nothing to address the nuclear threat posed by Pyongyang's uranium enrichment program. In fact, the North Korean uranium enrichment program by itself could produce as many as 36 weapons by 2009 (figure 2). Adding the one to five weapons North Korea may already have, the total is between 37 and 41 weapons. The total number of nuclear weapons it could produce without a plutonium freeze, on the other hand, could be as high as 101 weapons. In either case, the number is high.

Facing the Facts

Some backers of the Agreed Framework fully appreciate this point. They hold that Washington must go beyond supporting the plutonium moratorium and strike a new agreement obligating Pyongyang to freeze or dismantle its uranium program. Can such a deal be made without undue risks? Three considerations suggest that it would not succeed.

weapons. Finally, various experts caution that it would take five or six years to bring these plants on line.

Besides relatively high estimates for 2009, the projections are striking in terms of how long-fused and relatively small the breakout for plutonium production would be (see figure 1 below).

Only ten weapons separate the number of plutonium weapons that analysts believe the North has today and what it may acquire without a freeze by 2008. On the other hand, the number that it already possesses—one to five—makes Pyongyang's efforts to make more seem relatively unimportant. Just the one to five weapons it currently has, when combined with

Figure 1. Projected Number of Plutonium Weapons

Low estimate
(1 bomb deployed, plus 1 per year, production of 35 per year starting in late 2008)

High estimate
(5 bombs deployed, plus 1 per year, production of 50 per year starting in late 2008)
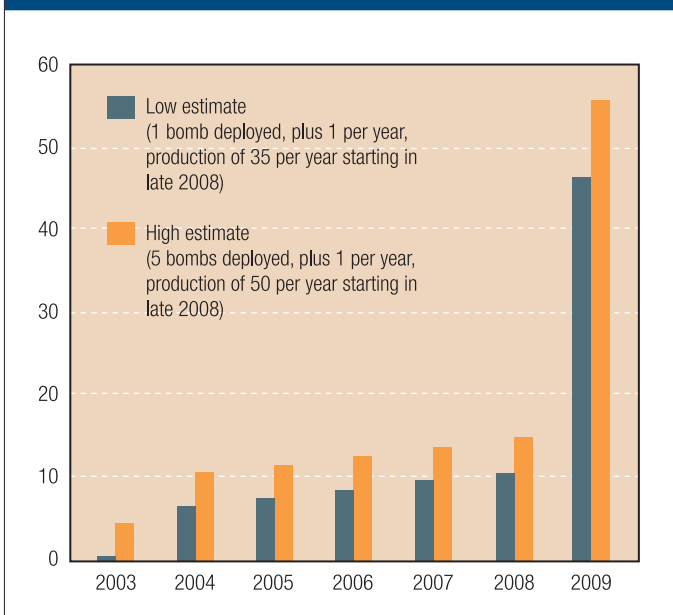
Figure 2. Projected Number of Uranium Weapons

Low estimate
(2 per year starting 2006)

High estimate
(6 per year starting 2004)
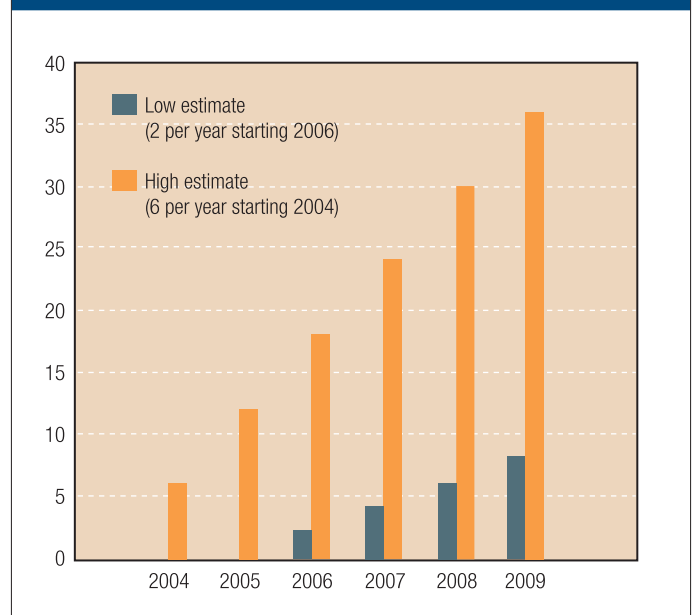
First, there are difficulties in verifying a uranium freeze or dismantlement. Unlike declared plutonium production facilities, whose location is known and whose operation can be detected by satellite, much of the enrichment program is hidden underground. Compounding this problem is a dearth of baseline data on North Korean nuclear activities. International inspectors roamed Iraq in the 1990s and visited both declared and undeclared sites. By contrast, IAEA inspectors have conducted only one routine inspection of declared facilities—ten years ago. Finally, the need to centralize uranium production with centrifuge enrichment technology at one

unlike declared plutonium production facilities, the enrichment program is hidden underground

site is far less than for plutonium. Instead of running 3,000 centrifuges at one site to produce enough uranium annually for several weapons, batches of centrifuges totaling 3,000 machines could be hidden in several of over 8,000 caves. Checking the uranium program against a list or manifest is thus impossible. The United States is now in the snoop and spy mode and can neither trust nor verify.

Second, there are repeated violations by Pyongyang of nuclear nonproliferation pledges as well as its latest blatant compromise of the Nuclear Nonproliferation Treaty. If Washington tries to resolve these transgressions by striking another bargain, it is difficult to see any accord as anything but an act of weakness. North Korea could be expected to demand more tribute for another freeze or partial dismantlement and then cheat. Meanwhile, political factions in South Korea who oppose U.S. troops in their country could use such a deal as evidence that the North Korean military threat has declined and no longer requires an American presence.

Japan might follow the example of South Korea by seeking U.S. force reductions. In turn, this development might be misread by China and encourage more vigorous action toward Taiwan or

Yongbong nuclear facility in February 2000.

AP/Wide World Photo (Space Imaging)

be perceived by North Korea as a signal to push its vision of confederation on the South, either of which could prompt military tension or possibly war. Conversely, the Japanese might react not by asking Americans to leave but by choosing to remilitarize. This could entail going nuclear, and not with only one or two weapons, but given its larger and growing stockpiles of separated plutonium, with hundreds or even thousands. China has thus far held back from weaponizing its surplus stockpile of nuclear material but could build 1,000–2,000 weapons. In turn,

these events could force the United States and Russia to reconsider their announced strategic arms reductions.

Finally, there is the possible impact that such events could have on NPT member states that have tried to develop nuclear weapons or may be interested in doing so. For such nations—Algeria, Egypt, Iran, Libya, South Korea, Syria, Taiwan, Turkey, and Saudi Arabia—negotiating any deal would suggest that cheating pays and repeated cheating pays impressively.

Despite having recently resumed missile testing and plutonium production, North Korea may still be constrained by its neighbors. One major

restraint is the likely reaction of neighboring countries. Russia and China might favor reduced U.S. influence in Asia, but neither is interested in seeing North Korea provoke Japan to militarize or encouraging South Korea and Japan to strengthen security ties with America. That is why Moscow and Beijing went to great lengths through high-level visits to Pyongyang in 1998 and 2000 to keep Kim Jong Il from resuming missile tests over the Sea of Japan.

Moreover, both Russian and Chinese leverage over North Korea is substantial and likely to grow. Moscow will soon be selling military equipment to both Koreas. The manner in which this trade is conducted has special importance to Pyongyang. Beijing must deal meanwhile with a new set of refugee issues. These matters could have a grave impact on the survivability of the North. China, which supplies nearly all the fuel and much of the food to North Korea, has an increasing need to please government-supported investors in the South.

Finally, North Korea cannot build up strategic military capabilities without having negative effects on its prospects of securing substantial financial help from Europe, Japan, and international lending institutions. Locally, the harm to financial aid from Japan and South Korea would be more direct. It would not only jeopardize talks with Tokyo on payment of World War II reparations (worth as much as $10 billion), but also risk both critical private investment and continued illicit currency transactions from Japan and South Korea.

The Way Ahead

North Korea might be leveraged to keep it from substantially exceeding its current extent of nuclear and missile activity. As long as Russia and China think that closer American cooperation with Japan and South Korea (including missile defense) is a likely response to nuclear misbehavior by Pyongyang, both are likely to lean on North Korea to restrain itself.

Accordingly, Washington and Seoul must increase the credibility of the declared strategy of deterring aggression by threatening deep conventional counterstrikes. Pyongyang currently seems to believe that Americans and South Koreans cannot execute the strategy. In fact, most forces in the North are deployed within 100 miles of the demilitarized zone rather than spread out to absorb deep conventional

the United States must back the International Atomic Energy Agency and Nuclear Nonproliferation Treaty

operations. One efficient way of increasing the plausibility of U.S. defense planning might be wargaming (perhaps with Chinese and Russians). Efforts to strengthen defenses against North Korea, including training, research, and acquisition, should also be encouraged. This could also assure interest by both Moscow and Beijing in curbing Pyongyang and may encourage a shift in North Korean resources from nuclear to conventional forces.

The United States and its allies must also back the International Atomic Energy Agency and the Nuclear Nonproliferation Treaty. The IAEA board of governors resolved in November 2002 to call on Pyongyang to provide relevant information on its uranium enrichment program, open facilities to inspection, and give up nuclear weapons programs in a verifiable manner. The resolution requires North Korea to act before the next IAEA meeting. The initial response by Pyongyang was rejection of the resolution as one-sided and a stated intent to resume operation of its plutonium producing reactors.

Assuming that North Korea continues to ignore the demands to give up its nuclear weapons programs, the United States and its allies will have to hedge against another risk—the transfer of nuclear technology or material to other parties. Washington is seeking to disarm Iraq, a nation that has violated pledges not to acquire weapons of mass destruction. And it has security treaties with Seoul and Tokyo to deter nuclear violators. Now it must work

with the United Nations, the European Union, Japan, South Korea, and others to interdict trafficking in weapons of mass destruction.

The United States and other nations must leverage North Korea diplomatically. Those that have provided energy assistance under the Agreed Framework and recognized Pyongyang should announce their intent to suspend or cease recognition if the Koreans fail to heed IAEA demands. They should make it clear that unless the North complies, the agency must report to the Security Council that it is in violation of NPT obligations and that a series of increasingly harsh economic sanctions will result. These steps alone may not force compliance, but will exact a price for refusal and help deter others by demonstrating that IAEA and NPT violations are taken seriously.

Finally, to assure lasting nuclear restraint, the current hostile leadership in North Korea needs to give way to more liberal self-rule. Certainly, the instances when countries gave up nuclear weapons programs (including Argentina, South Africa, Ukraine, and Brazil) were occasioned by a political transition to a more liberal form of government.

Here, a good place for the United States and its allies to start would be spotlighting human rights abuses in North Korea and encouraging the free movement of its citizens to China, a state that has forcibly repatriated thousands of people back to the North in contravention of international human rights agreements. The United States and its allies should assure Beijing that refugees fleeing to China will be absorbed by other nations. In any case, making sure that the stories of these refugees are publicized is critical in ensuring that the contradictions and impracticalities of the regime in Pyongyang are brought fully into play—to produce either reform or an eventual liberating collapse. **JFQ**

People's China

PLA entering Hong Kong, July 1997.

and the Asian Future

By HUGH DE SANTIS

Hugh De Santis is president of Globe Strat, Inc., and previously served as chairman of the Department of National Strategy at the National War College.

The Japanese regard the 1990s as a lost decade because of the prolonged economic torpor and political lethargy that gripped their nation. Strategically, the 1990s also represent a lost decade for the United States. The end of the Cold War led to a combination of hubris and complacency that inspired few new ideas on the international order. A vibrant global economy and the absence of threats prompted Americans to believe that they lived in the best of all possible worlds.

Events were encouraging in Central and Eastern Europe and Latin America, where dictators and oligarchies were replaced by democratic regimes and market economies, but in Asia, military tension, territorial disputes, and ethnic friction impeded stability. Moreover, China was emerging

as a regional power and, after Tienanmen Square, a threat to U.S. interests.

While the Clinton administration believed that economic reforms in China would eventually accommodate Washington, a crisis in the Taiwan Strait in 1996, continued transfers of technology to rogue states by Beijing, and the bombing of the Chinese embassy in Belgrade eroded such hope. Following the election of George Bush, relations deteriorated further until late 2001, when a new amicability emerged in the wake of 9/11, feeding speculation of a budding partnership.

Any further progress will depend on the leadership of China as well as the governments of the United States and other nations. Four scenarios depicting plausible Asian futures help explore this general issue: strategic partnership, regional integration, Chinese

China acquiesced to U.S. withdrawal from the ABM Treaty and deployments of American forces to Central Asia

dominance, and Chinese instability. Although these scenarios are driven by China, they take account of developments elsewhere, especially Japan, Taiwan, and Korea.

Future 1: Strategic Partnership

Preconditions. Despite tension in Sino-American relations after Tienanmen Square, Beijing may find it in its interest to seek a strategic partnership with Washington. Given U.S. military capabilities, along with the economic vitality and cultural allure of America, Chinese leaders appear to think that the United States cannot be challenged for the foreseeable future. Even prior to 9/11, intellectuals at Beijing University prodded the leadership to develop a more realistic stance toward America to achieve long-term economic and military objectives.

It is impossible to know if such views resonated among Chinese leaders. But Jiang Zemin endorsed U.S. intervention in Afghanistan and took a more cooperative tack toward Washington. Not only has China shared intelligence on terrorism and offered aid in

reconstructing Afghanistan; it acquiesced to U.S. withdrawal from the ABM Treaty and deployments of American forces to Central Asia. While Taiwan remains a sore spot, it has not dampened the cordiality that marked the visit by Hu Jintao to Washington or the recent meeting of Jiang and Bush in Texas.

Domestic reform, which has necessitated accommodations such as revision of the one-child policy to satisfy demands for personal freedom, is also moving China to adopt a more cooperative stance. Since Beijing is transitioning from a command to a market economy, it cannot risk being cut off from Western investment, which is needed to advance economic growth and create jobs.

Development. The growing pragmatism of the new leadership evolves into a partnership, as espoused under President Bill Clinton. China remains a recipient of Western capital and technology as it gains greater access to American educational and research institutions, contributing to modernization and economic growth. This partnership allows Beijing to buy time in implementing its commitments to the World Trade Organization (WTO), which meet further resistance from provincial governments and agencies such as the State Development Planning Commission.

Current and projected economic benefits of Sino-American cooperation make it much easier for fourth generation technocratic leaders to modernize over opposition from hardliners who object to market reforms. Despite protest from the unemployed and accusations of ideological betrayal by the Communist Party, Hu navigates the shoals of industrial restructuring and socialist orthodoxy.

Chinese relations with neighbors also benefit. As China and Taiwan become more closely linked economically and leaders in Beijing become less threatened by dissent at home, contact between the two countries expands. After the United States brokers an agreement across the strait in 2010, Taiwan relinquishes both defense and foreign policy to the mainland in exchange for

political and economic autonomy. The emergence of China as a status quo power relieves major concerns over its hegemonic ambitions and increases intraregional cooperation.

Despite lingering historical resentment, the continuing shift of Japanese production facilities to China intensifies economic cooperation. Economic linkages promote improved political contacts between Beijing and Tokyo, leading to resolution of the Senkaku/Diaoyu Islands dispute by 2010. About the same time, the erstwhile historical adversaries establish an incipient defense dialogue and begin exchanging observers at military exercises.

From the U.S. perspective, strategic cooperation with China enhances regional stability in several ways, not least by removing Taiwan as a flash point. It also reinforces Chinese adherence to the missile control technology regime and agreements that constrain arms sales. Consequently, China plays an increasing role in denuclearizing the Korean peninsula and fostering normalization talks between Pyongyang and Seoul that result in reunification by 2010. Meanwhile, Washington maintains its alliances and continues the forward deployment of U.S. forces.

The China market that America envisioned at the turn of the 20th century becomes a reality. After 2010 the United States envisions the day when China and Japan, like France and Germany in Europe, become pillars of regional stability. Anticipating that China will surpass Japan by 2025, Washington thinks that Beijing could emerge as its key ally in the region, helping to ease crises that may emerge in Russia, Southeast Asia, and South Asia. It also believes that China can help secure its interests across the Eurasian landmass, including the Middle East and the Balkans.

Future 2: Regional Integration

Preconditions. Despite protectionism, institutional lethargy on the part of the Asia Pacific Economic Cooperation (APEC) forum, and growing support for bilateral trade, protracted stagnation in direct foreign investment led to greater intra-Asian commerce. At a

Recovering EP–3, July 2001.

conference in November 2002, the Association of Southeast Asian Nations (ASEAN) presented a scheme for free trade with China by 2013. At the same time, the organization initiated trade talks with India and issued a report on the economic integration of ASEAN+3. In addition, the ASEAN Free Trade Area, which was formed in 1992, will come into force in 2003. While no one expects such events to result in a common market, trade liberalization and economic integration are attracting increasing interest throughout Asia.

Three factors gave impetus to regional integration. One was the increasing interdependence of the international economy and the resulting growth of trade associations. Clearly the European Union and the North American Free Trade Agreement energized development of trade liberalization policies in the newly created Asia Pacific Economic Cooperation forum and in ASEAN, the model of Asian integration organized in 1967. The other stimulus was the financial crisis of 1997–98 that ended three decades of dramatic growth and ushered in unemployment, deflation, and fiscal chaos.

Currency devaluations, lower exports, and capital flight, in turn, led to incipient economic reform in Thailand, South Korea, and Malaysia.

Although reforms initiated after the 1997–98 crisis only skimmed the surface of what was required—nonperforming loans and rising government debt continue to act as a drag on economic growth—the recession that began in the United States in early 2001 and spread across the Pacific has refocused attention on the importance of a larger, more integrated market to reduce dependence on exports to the United States.

Global economic stagnation has also galvanized further interest in measures to support weakened currencies, including the Chiangmai Initiative and Asian Monetary Fund that Japan proposed in 1997. More important, China has become a lightning rod for Asian integration. Its emergence as a manufacturing entrepot has contributed to regional integration by accelerating the market-driven process of production that relies on inputs from multiple sources. The free-trade area initiative that Prime Minister Zhu Rongji presented at the ASEAN+3 gathering in 2001 has reinforced Asian integration. It has also prompted Japan to sign a free-trade accord with Singapore and begin dis-

China has contributed to regional integration by accelerating the market-driven process

cussions with other trading partners in a hub-and-spoke arrangement that some Japanese analysts maintain will reinforce regional integration.

With respect to security issues, regional integration is more wish than reality. The ASEAN Regional Forum was unveiled with much fanfare in 1994 as a vehicle for preventive diplomacy and conflict resolution. But it has accomplished little since opposing the Chinese incursion on Mischief Reef in 1995, as it demonstrated later when China returned to resume construction of its facilities. Nevertheless, Asian countries share common security interests, which include limiting proliferation of missiles, countering terrorism and drug trafficking, combating piracy, and containing communal violence, as peace operations in East Timor illustrated. The declaration on terrorism issued in 2001 at Shanghai by APEC, its first adoption of a security measure, was reaffirmed and expanded at the recent meeting of the organization in Cabo St. Lucas.

Development. The Chinese economy continues to expand, creating enormous intra-Asian markets and stimulating structural reform in Japan

and elsewhere. It anticipates the development of competitive cooperation between China and Japan and the evolution of a multilayered grouping of bilateral, regional, and cross-regional agreements that converge by 2015 with the inauguration of the East Asian Economic Community. It also foresees close ties between India and the community that promise to extend the markets to South Asia. It implies that China, Japan, and smaller states recognize the benefit of integration in domestic growth and social peace, enhancing investment and trade, and developing technologically innovative companies which exploit emerging niche markets.

In addition to removing trade barriers to protected sectors such as automobiles in Malaysia, petrochemicals in the Philippines, and agriculture in Japan and Thailand, integration spurs mergers in banking and manufacturing, expanding internal competition and increasing foreign investment. Building on the Chiangmai Initiative, currency swap agreements crystallize in the form of an Asian monetary accord in 2015, which supports exchange-rate equilibrium during financial crises.

Politically, integration contributes to more open, tolerant, and democratic societies. While the Communist Party maintains unchallenged authority in China, demands for social services result in devolution to provincial governments and more public involvement in the selection of officials. Elsewhere, Indonesia imposes civilian control of the military and autonomy for secessionist areas. In Singapore and Malaysia, internal security is relaxed with the election of new leadership.

Integration effectively inhibits China from taking unilateral action. Although Beijing claims sovereignty over the South China Sea and the Senkaku Islands and regards Taiwan as a renegade province, it is more inclined to compromise. It agrees in 2010 to preserve Taiwanese autonomy while acknowledging that it is an integral part of the mainland. By then the economy of Taiwan has become functionally imbedded in the life of the mainland and fears of invasion recede.

As a status quo power, China helps broker peace on the Korean peninsula, a process that begins after the devastating American invasion of Iraq in 2003 and pressure from Beijing, Tokyo, and Seoul prompt Kim Jong Il to abandon nuclear ambitions. In addition to normalizing relations between North Korea and Japan, Pyongyang agrees to a phased withdrawal of its troops from the border with South Korea in return for withdrawing U.S. forces from the Demilitarized Zone. By the outset of the second Bush administration, the North is opened to foreign trade and investment, undertakes reunification talks with Seoul, and signs a nonaggression treaty with the United States.

The reunification of Korea in 2010 leads to the withdrawal of the 37,000 American troops and a drawdown on Okinawa. Nevertheless, Asian states agree that a continued U.S. presence helps ensure stability in their transition to a cooperative security regime some time after 2025.

Future 3: Pax Sinica

Preconditions. In contrast to strategic partnership, this scenario assumes that cooperation in the war on terrorism will not alter the inherent geostrategic competition between Washington and Beijing. It is also at odds with the liberal-internationalist notion that economic interdependence will moderate Chinese ambitions. Under this scenario, economic growth accelerates the modernization of the military by Beijing and, owing to the increased nationalism of the new leadership, buttresses its strategy of supplanting the United States as the dominant Asia-Pacific power.

Although Washington has benefited from the new affability in Sino-American relations, China is the real beneficiary. It is true that Beijing acceded to the U.N. resolution on Iraq, shared intelligence on militant Islamic groups in Asia, and helped bring Pakistan into an anti-Taliban coalition. But it has gained support from the Bush administration to suppress Muslim Uighurs and their ethnic coreligionists in Xinjiang. In addition, the resumption of military talks suspended after the downing of the U.S. reconnaissance plane in 2001 will enhance

Chinese warships off Mischief Reef.

AP / Wide World Photo (Pat Roque)

the People's Liberation Army (PLA) understanding of American capabilities.

To be sure, Beijing has issued regulations restricting export of missile

China is politically and militarily more assertive since the Cold War

technology to states that abet terrorism, but it is fanciful to believe that will end the proliferation of Chinese missiles. Violations of human rights show little sign of easing, as suppression of Falun Gong and increased censorship reflect. And Taiwan remains a major obstacle in Sino-American relations. Indeed, hardliners in the party and army still believe that the sale of military equipment to Taiwan, along with the revised guidelines for U.S.-Japan defense cooperation, plans to deploy a ballistic missile shield, and American bases in Central Asia are part of a long-term strategy to encircle and weaken China. Furthermore, Beijing has not forgotten history. The emphasis on nationalism as a unifying ideology is intended to mobilize support for the recovery of lost territories such as Taiwan.

China is politically and militarily more assertive since the Cold War. It has signed security and friendship treaties with 14 neighbors including Russia, set up intelligence facilities in Burma to monitor Indian missile tests, supplied nuclear technology to Pakistan, and seized the Mischief Reef atoll claimed by the Philippines. It has increased defense spending, which some analysts estimate runs to $60 billion annually. It has acquired state-of-the-art fighters, submarines, and guided-missile destroyers from Russia and enlarged its nuclear arsenal.

Economic modernization has enabled Beijing to acquire sophisticated weaponry from other nations and accelerate development of a defense industrial base that will exploit new technologies. It is also increasing soft power. As reflected by its ownership of energy assets in Kazakhstan and Indonesia and its free-trade initiative, China is becoming the economic engine of Asia. Meanwhile, it is reassuring its neighbors such as Indonesia, Malaysia, and Singapore, which stand to be major beneficiaries of its energy, petrochemical, and electronic needs, that their economic future lies in a close association with China rather than with Japan or the United States.

Development. After the 16th Party Congress, Hu and Standing Committee members use membership in the World Trade Organization, a thaw in relations with America, and the Asian free-trade initiative as tactical ruses to disguise expansionist aims. Exploiting military contacts with nations that are eager to sell arms, modernization proceeds unimpeded, driven by a strategy of active defense that enables the defeat of a superior adversary, namely the United States.

Modern tanks and other armored vehicles from Russia assess the battlefield with satellites built with German and British assistance, while Mi-8 and Mi-17 transports and attack helicopters strengthen ground capabilities. Russian-made Su-27 and Su-30 strike aircraft with Israeli air-to-air missiles and British avionics increase the ability to patrol the sealanes. *Kilo*-class submarines and *Sovremenny*-class guided missile destroyers join a fleet of domestically constructed vessels to form a blue-water navy by 2015, permitting China to undertake theater-wide deployments by 2025 and maintain an Asia-wide presence by 2050. In 2010, the navy boldly begins provocative maneuvers in the waters around Taiwan and the Senkaku chain as well as in the Indian Ocean.

Having replaced the 40 liquid-fueled DF–4 and DF–5 intercontinental ballistic missiles with solid-fueled, mobile missiles with more accurate warheads, China flexes a powerful nuclear force that can reach the continental United States. New intermediate-range systems pose greater threats in the Western Pacific and the buildup of short-range missiles aimed at Taiwan intensifies. Beijing embraces the revolution in military affairs and, with assistance in computer sciences and artificial intelligence, gains military capabilities after 2005 to defend its territory and assets from attack.

As U.S. economic recovery continues, China emerges as an important trading partner for other nations. Burma, Laos, and Cambodia assume a vassal status, and other ASEAN members find their autonomy circumscribed by policies emanating from Beijing. Likewise, China entices South

Korea into its sphere, even as it helps the North create a unified, nonnuclear Korea aligned with the People's Republic. Japan, like India, becomes more isolated from the rest of Asia in both political and economic terms; it agonizes over kowtowing to China, becoming a protectorate of the United States, or developing its own nuclear capability. For its part, the communist leadership envisions the creation of a Chinese Greater East Asian Co-Prosperity Sphere sometime after 2015, leading to establishment of an informal empire in the second quarter of the century that recreates the tribute system the Han peoples historically imposed over their minions.

China finds itself on a collision course with America, which relies on public support to bear the burdens of war. If the United States does not become bogged down in the war on terrorism or nationbuilding, it could oppose the Chinese. But complications stemming from the defeat of Iraq, coupled with attacks on Americans abroad and at home, exceed anticipated consequences.

In this eventuality, a protracted deployment of U.S. troops in Iraq and Afghanistan wreaks havoc on homeland security and the economy, and public support for the war on terrorism withers. Weary of foreign commitments, public opinion calls for a withdrawal from the Near East and Southwest Asia and a reduced presence elsewhere around the world. Asian allies lose confidence in the United States and submit to their new overlords. Unable to mobilize public support for a long war, America abandons much of Asia to Chinese control.

Future 4: Instability

Preconditions. As the mantle of leadership passes to Hu Jintao, China appears politically stable and economically vigorous. The new regime has enshrined the theory espoused by Jiang in *Three Represents* in party orthodoxy, signaling the continuation of modernization and cooption of the middle class. According to official statistics, real gross domestic product rose 8 percent in the second quarter

of 2002. Productivity is up, boosted by higher investment in state-run companies, rising exports, and job growth. A cheaper yuan, tied to the dollar, should further fuel exports, especially against Japan and South Korea, and WTO membership will increase foreign investment.

But political control is far from certain. Hu is surrounded by protégés of Jiang and others of questionable loyalty. Jiang himself seems intent on clinging to power, having retained control of the Central Military Commission. Divisions on the Standing

globalization and the needs of 1.3 billion people are burdens for an authoritarian regime

Committee will also delay further economic restructuring and increase social fissures between the new middle class and urban and rural poor. This does not bode well, because the takeoff phase from a developing to industrialized country is over, and capital and technology inputs are bound to rise as manufacturing shifts to higher value-added production. Moreover, the demand for skilled workers and import competition from WTO membership will increase unemployment, and an exodus from the farm to factory will exacerbate the problem. Forced to keep bankrupt state-managed enterprises afloat, the government is increasing the level of nonperforming loans and building up debt that could eventually trigger a financial crisis.

China is a ticking time bomb. Globalization and the needs of 1.3 billion people are burdens for an authoritarian regime unaccustomed to change. Protests have increased over income disparities, rampant corruption, and a loss of social services. Lacking institutionalized outlets, businessmen, former soldiers, students, and even government officials reportedly have joined protests by the economically dislocated.

Fears of social instability have prompted repression of dissidents and groups such as Falun Gong as well as Internet censorship. Control by the Communist Party also permeates academic institutions, state-run factories,

and foreign partners in joint ventures. In spite of these measures, however, the government is faced with the same reform-versus-control dilemma that thwarted Mikhail Gorbachev in the Soviet Union. Continued modernization could challenge communist authority. But if the party emphasizes stability at the expense of modernization, it will stifle growth and thus court social disorder that could reverberate beyond its shores.

Development. After the 16th Party Congress, divisions between hardliners and reformers immobilize government decisionmaking. With support from the Politburo, Jiang undermines Hu. Meanwhile, social disparities, failed banks, and collapsed services trigger large protests, especially in poor provinces like Yunnan and Jilin. While order is temporarily restored by force, China faces a crisis similar to the Cultural Revolution midway through the second Bush administration. Zeng Qinghong replaces Hu, an ally of Jiang, who reasserts control. Tens of thousands lose their lives, and economic reforms introduced thirty years ago are gradually extinguished.

Such a future can have two outcomes. In the first, seized by unrest, China retrenches both politically and diplomatically. The military buildup stalls, leaving the People's Republic with the ability to defend its borders but, save for nuclear weapons, bereft of the means to threaten Taiwan or Southeast Asia. Worried over the disintegration of China, and fearful that Vietnam, India, or North Korea might take advantage of its disarray, the region pins its hopes on American presence. The turmoil ends progress toward economic integration. Many nations pay lip service to free trade but focus on commerce with the United States and to a lesser extent Europe.

In the second outcome, unrest in China is protracted and triggers competition among states that seek to exploit its internal disarray. New alignments serve as hedges against the reemergence of Chinese power following the upheaval. Russia increases political and military cooperation with India. Under an ever more confident

PLA missile test in Fijian Province.

AP/Wide World Photo (Xinhua)

Allies observing Forest Light '03–01.

1st Combat Camera Squadron (Jeremy T. Lock)

and assertive Vladimir Putin, Moscow expands its influence in North Korea and Central Asia. India, for its part, exploits the Chinese obsession with domestic issues by intensifying pressure on Pakistan over the crisis in Kashmir and expanding its economic and military sway over Southeast Asia, notably in Vietnam.

Mounting security worries fuel nationalistic sentiment in Japan, prompting Prime Minister Shintaro Ishihara to remove the military shackles imposed at the end of World War II. At the same time, Tokyo strengthens relations with Moscow, leading to a partial resolution of the impasse over the Northern Territories, and with Seoul, to balance a

growing reliance of Pyongyang on Moscow. Alarmed by the North Korean nuclear threat, Japan deploys nuclear weapons, as do South Korea and Taiwan. Fearful of a remilitarized Japan, many ASEAN members turn to the United States for protection and to strengthen their capabilities. Despite its alliance with the United States, Australia follows a cautious course to reduce Chinese fears of encirclement and safeguard its commercial interests, which nonetheless languished.

Chinese economic ties with Southeast Asia also fray badly, and integration grinds to a halt. Like the policies of the 1990s, many nations in

the region devalue their currency and impose higher tariffs. To compound the problem, Japan clings to a weakened yen, which leads to massive price deflation and threatens to plunge the region into depression. In time, Asian economic dislocations spread to the United States and Europe, as investors who have shifted production to Shenzhen or Guangdong begin to incur losses.

Worried that internal unrest will increase vulnerability to external threats, particularly if Tibet, Mongolia, and Xinjiang declare independence, China asserts claims to the Senkakus and Spratlys by increasing its naval deployments. Beijing also threatens military action to recover its renegade province, recognizing that turmoil on the mainland makes it less attractive commercially to Taipei. Taiwan, for its part, contemplates declaring independence in 2009, trusting that America will come to its aid in a clash with China. Meanwhile, rumors abound that Pakistan may launch a preemptive attack on India to seize Kashmir and anti-Chinese violence breaks out in Aceh and

other islands of the Indonesian archipelago as people seek scapegoats for economic decline. Beijing issues a stern warning to Jakarta and threatens action to defend local ethnic Chinese.

Incapable of containing multiple crises simultaneously, the United States endeavors to relax tensions diplomatically. But preoccupation with terrorism and peace operations limits its response to the looming crisis in Asia. Convinced that U.S. commitments can no longer be trusted, Japan, South Korea, and Taiwan intensify their buildups. Russia, India, Pakistan, Indonesia, and smaller states in the region likewise enhance their military readiness. Alarmed by a deterioration of affairs, Washington focuses its attention on Asia. It is joined by Russia, India, Japan, Australia, and several ASEAN members against China, North Korea (or a united Korea), Pakistan, and other states, including Burma, Cambodia, and Laos. In this scenario, 21st century Asia mirrors conditions that obtained in Europe in 1914, except that the combatants are armed with nuclear weapons.

Assessing the Future

While the futures outlined in the four scenarios above are plausible projections of existing and conjectured trends, they are not equally likely to materialize. One could hardly devise a more attractive future than strategic partnership. But it is highly improbable, not least because of a preoccupation by Hu with internal affairs. Besides, neither Hu nor any other leader would agree to a partnership with the United States unless their interests were acknowledged. In addition to support for the one-China policy, this would require accommodation by Beijing on its claims in the South China Sea and complicity in the repression of Tibet, Inner Mongolia, and Xinjiang.

Partnership between China and the United States would surely arouse suspicion in Japan. Access to American bases and host-nation support would become more contentious for the Japanese, and the bilateral defense agreement could unravel. Despite the reassuring presence of the United States as the major partner in the new power condominium, Russia and India would remain wary of long-term

Chinese aims. A Sino-American duopoly could incite geopolitical rivalries.

Despite ethnic, cultural, and other divisions, Asian regional integration is more likely than strategic partnership. Yet it is unclear that China has embraced multilateralism; its free-trade initiative may be a Trojan horse. The recent free-trade agreement with Singapore aside, it is also questionable whether Japan will challenge the vested interests of its protected industries. Unlike the nations of Europe, Asian countries see one another as competitors rather than partners and resist organizing hierarchical structures like those planted in Brussels. Furthermore, a variety of crises could plunge Asia into turmoil and retard regional cooperation. Nevertheless, a network of formal as well as informal intraregional relationships is developing in spite of the obstacles that could redound to U.S. interests. Not only would integration create a massive market for American goods and services, it could foster more democratic governance and greater social stability, thereby lessening the likelihood of regional conflicts that might jeopardize American equities.

Regional integration may be the stalking horse for Chinese hegemony, but it is unlikely that Beijing will reintroduce a tribute system. For one thing, increasing global interdependence and Asian integration will probably inhibit China from unilateral acts that might undermine its interests. Moreover, expansionism would eventually be challenged by other powerful states—India, Russia, Japan, and the United States—independently or collectively.

A militarily formidable China would pose an expansionist threat, but there is little chance in the near to medium term that it will have the capability to dominate the region. Lack of engineering expertise, capital, and commercial infrastructure present major obstacles to military modernization, not to mention power projection. Economic growth will lead to technological innovations that have military as well as commercial applications, but the United States, Japan, India, and South Korea will also benefit from such advances, making it harder for China to close the technology gap.

This scenario assumes that China's velvet glove conceals its iron fist. But given the many problems likely to be experienced by Beijing, there will be plenty of chinks in its diplomatic armor. Moreover, it may not be able to isolate Japan, which remains the most important trading partner for the nations of Southeast Asia and the main donor of aid to the region and to China.

Although regional instability poses a greater threat to international order than Chinese expansionism, the odds are lower that it will occur in the short run. Beijing has maintained order by courting the new middle class, permitting only controlled public criticism, and addressing grievances such as worker safety and family planning. As reforms proceed and Hu consolidates power, relaxation of political dissent may be tolerated, as some intellectuals advocate.

Economic growth is the most effective antidote to social unrest. If integration accelerates within the region, China will be the recipient of investment and technology, which should create new jobs. The deal between Toyota and First Automotive Works, the biggest car manufacturer in China, is the latest case of the growing economic cooperation between the mainland and Japan. Commercial ties with Australia and ASEAN are also expanding. Converging interests may restrain states from acting aggressively, but they may facilitate a modus vivendi between China and Taiwan, ASEAN, and even Japan.

An excessively cautious Chinese approach toward economic reforms could cause trouble for Beijing, especially if the global economy falters. Economic decline could fuel resentment among the middle class as well as the poor in rural and urban areas. A breakdown in the social order of China would have far-reaching repercussions if it prompted other nations to fill the vacuum and provoked a regional conflagration in which the United States would inevitably be involved.   **JFQ**

The Global War on Terrorism

A Regional Approach to Coordination

By CHARLES N. CARDINAL, TIMBER P. PANGONAS, *and* EDWARD MARKS

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According to Ecclesiastes, "Of the making of books there is no end." Much the same can be said of military organizations and the acronyms by which they are known. The Joint Interagency Coordination Group is an example. The term can claim dual parentage, U.S. Pacific Command (PACOM) and U.S. Joint Forces Command (JFCOM). Both commands have wrestled with implementing national security policy in recent years. Segregating diplomatic and military efforts was problematic during the Cold War and became more so in its aftermath.

By the end of the 20th century the Armed Forces had taken joint warfighting to new heights and refined their abilities to mount coalition operations. Civilian agencies also made serious progress in facilitating interagency coordination. Such integration has a long history and was a rationale for establishing the National Security Council

(NSC). Presidential Decision Directive 56 issued by the Clinton administration attempted to institutionalize a formal procedure for interagency planning and management of contingency operations. Moreover, the war on drugs has been conducted by a mix of civilian and military instruments. Nevertheless, the stovepipe nature of the Federal bureaucracy was an obstacle to pursuing national interests in a globalized world.

The war on terrorism has galvanized the move toward organizational innovation and reform to improve interagency coordination. The enhanced integration of civilian and military agencies on the operational level was

9/11 led to changes needed for a proactive campaign against international terrorism

under consideration at JFCOM before September 11, 2001. Both the organizers and participants in Universal Vision '01 grappled with the issue of coordination. By the end of the exercise, the concept for an interagency staff directorate on the regional command level had emerged. It was advanced under the command joint experimentation staff and in a white paper, "A Concept for Improving U.S. Interagency Operational Planning and Coordination," which appeared in March 2002. Known as the Joint Interagency Coordination Group (JIACG), it was also tested in Millennium Challenge '02. The final report on the exercise was favorable in its view of JIACG, and JFCOM has been instructed to prepare the concept for operational use in 2004.

In the wake of 9/11, Admiral Dennis Blair, who was then Commander, U.S. Pacific Command, was concerned that military power alone would have limited effects against decentralized non-state terrorist groups. Thus he proposed organizing the Joint Interagency Task Force-Counterterrorism Asia Pacific, with a broad interagency mandate as well as coordinating authority. Other combatant commands submitted similar proposals for some sort of coordination mechanism.

The Joint Staff considered these proposals and then submitted a concept paper on JIACG to the NSC

deputies committee which approved it. The commands were instructed in February 2002 to implement the concept: "JIACGs will be organized to provide interagency advice and expertise to combatant commanders and their staffs, coordinate interagency counterterrorism plans and objectives, and integrate military, interagency, and host-nation efforts."

The combatant commands had already responded by forming joint counterterrorism offices. They were officially renamed JIACGs in spring 2002 following an instruction by the Joint Chiefs, except for U.S. Central Command (CENTCOM), which retained the title of joint interagency task force.

Although each group has the same focus, their structure and activities vary with the area of responsibility. While PACOM, CENTCOM, and U.S. Special Operations Command have located the function in the directorate of operations (J-3), JFCOM has created a free-standing element on the command staff, and U.S. European Command (EUCOM) has created an independent directorate under civilian leadership (along the JFCOM model). JFCOM has two JIACGs—the experimental unit mentioned above and an operation element like other commands. The latter will eventually be transferred to U.S. Northern Command (NORTHCOM). These groups are focused on somewhat different aspects of counterterrorism, with CENTCOM mainly concerned with Afghanistan while EUCOM looks at nonmilitary courses of action and PACOM concentrates on emerging terrorist threats.

JIACGs were authorized for an initial period of six months. Despite the differences among these groups, each is intended to provide the following benefits, as originally outlined by JFCOM:

■ strengthen multiagency planning for complex mission tasks
■ establish a mechanism to synchronize agency efforts and eliminate waste and duplication
■ keep all agencies informed of agency efforts and prevent misconceptions
■ provide real time feedback between civilian and military agency efforts.

The Vision

While 9/11 may not have been the first battle of the war on terrorism, it was a cataclysmic event that led to changes needed for a proactive campaign against international terrorism. PACOM previously employed an active defense but had a reactive strategic approach. The first change in command guidance came with a restatement of the regional approach by Admiral Blair:

We will transition to the offensive rapidly; playing defense simply buys time for decisive offensive strikes. . . . The offensive will be proactive vice reactive and must ensure the elements of military power we control are fused synergistically with all elements of national power. The keys to success will be found in changing our mindset to one that is aggressively offensive and relentless in our pursuit of actionable intelligence.

Organizational and procedural shortcomings were quickly identified. For PACOM to work effectively on the interagency level, assets had to be reallocated to meet assigned and implied tasks. Blair directed the creation of a group to implement the command vision and refocus the operational counterterrorism capability. Functioning under the director for operations (J-3) and providing one-stop shopping, this new organization would include operators, intelligence analysts, and planners with expertise in special operations, intelligence, information operations, and civil affairs as well as staff support. Most importantly the group would seamlessly involve other critical players. Efforts by the Departments of State, Treasury, and Justice and the Central Intelligence Agency would be critical. The Joint Interagency Coordination Group/Counterterrorism (JIACG/CT) was organized around representatives from all these organizations.

Building on the words of President Bush, that the global war on terrorism would last years rather than months, this group was a new and integral part of the command, not an appendage patched together to focus on a single crisis.

Filipino rangers, Basilan Island.

Photos of terrorists, Philippines.

Getting Started

Initially PACOM organized an operational planning team to develop responses to national directives and the regional situation. It functioned as an ad hoc organization and was not intended to have a permanent role, but rather to give birth to an integrated staff team on counterterrorism.

The value of an organization lies in the people who make it up. The command picked talent from across the staff to generate traction. The gravity of the task assuaged any hard feeling among staff sections which lost personnel in this restructuring. In addition, given the nature of the group, there was a challenge to acquire personnel who could coalesce as an interagency team.

An assertive mindset was central to the vision. A process was needed to reshape the time-tested targeting board process for counterterrorism. The rigor and methodology of this model kept the targeting focused. Much was learned about threats, available tools, and requirements for solid connectivity. The reorientation of the intelligence apparatus to actionable targeting information, supported by indicators and warning, fed the process. It provided operational focus from the start and forced integration with interagency and coalition partners in the field. It furnished the connectivity for victory when actionable intelligence was garnered from millions of intelligence reports searched over by the targeting team.

There was commitment to build a cohesive team. Two factors contributed to the necessary relationships. First, it was known that little would happen in Honolulu; the action would occur in the field. The focus was placed on key nations in the area and relationships with ambassadors and country teams. The counterterrorism liaison program put tailored teams in American embassies to provide bilateral communication between JIACG/CT and diplomats and the interagency community in the field. To avoid being obtrusive, these teams serve under the operational control of command representatives in country (defense attachés or military group commanders).

Ambassadors are sensitive to the size and footprint of country teams and must be convinced that their efforts are value added. The task of making the case for the program fell to group leaders who also exposed nations within the region to this new approach.

The second key was linking agencies that were orchestrating counterterrorism on the strategic level. This task involved communicating the new approach and obtaining a commitment

to and participation in the interagency group being organized at Camp Smith. These relationships involved the Joint Staff, U.S. Special Operations Command, the Office of the Assistant Secretary of Defense for Special Operations and Low Intensity Conflict, Central Intelligence Agency, Federal Bureau of Investigation, and the Departments of State and the Treasury. While the program was embraced by all players, the devil was in the details. The bureaucracy was simply not agile enough to rapidly support JIACG/CT. A quantum leap in cooperation was needed, but it had to be achieved incrementally as agencies identified personnel and fiscal

JIACG/CT developed intelligence which led to a series of victories against terrorists

requirements. Early relationships proved invaluable. The response of the intelligence community was significant and the Department of the Treasury made an early commitment.

While initial efforts in the war on terrorism often played to a dark house, JIACG/CT facilitated a series of shadow operations. Perhaps the earliest successes in the regional campaign were arrests in Singapore and Malaysia of Jemaah Islamiya cells that were well rehearsed in the press. The arrests occurred in December 2001 after evidence of operational planning against U.S. and allied targets in Singapore was found in the residence of Mohamed Atef in Afghanistan. The rapidity with which the interagency apparatus coordinated with coalition nations led to a series of actions that demonstrated the value of interagency coordination. The discovery of a videotape in Afghanistan was tracked as actionable intelligence. Responses generated by the targeting process were quick and thorough, ensuring that all regional players had access to the information and that requisite actions and coordination were achieved. Prior to the advent of interagency coordination, positive action based on such an intelligence find would have been fraught with difficulty. Unlike December 2001, the effort was crisp and nearly frictionless.

Another example of the new relationships was the coordination with

the Federal Bureau of Investigation on intelligence gleaned from interviews and interrogations. This information is used in developing targets to strike with lethal or non-lethal means. Relations with bureau case officers have led to unprecedented cooperation. The benefits of shared rather than protected information are a testament to this new organization.

The Office of Foreign Asset Control also became a powerful tool. It was introduced to bad actors in the area through a full-time officer in JIACG/CT who aggressively connected the dots on the flow of resources. Incorporating activities of this office provided an appreciation of its tools to combat terrorism. It likewise gained a perspective unavailable to officers in Washington.

A singleness of purpose can be a huge advantage. The group understood the origins of terrorism within the region. Knowing the structure, resources, and goals of terrorists enabled the prediction of their next steps with accuracy. With the same rigor a brigade applies in analyzing the terrain for a combined arms attack, JIACG/CT developed intelligence preparation of the battlespace for all organizations, countries, and targets, which led to a series of regional victories against terrorists.

Looking to the Future

Although the group is a work in progress, it has been considered operationally capable and additive from the outset. There can be no reversion to stovepipes, dysfunctional coordination, and diffusion of efforts on the interagency level. The proliferation of terrorism presents complex problems: asymmetrical, multi-dimensional, and nonlinear. The counterterrorism campaign utilizes JIACG/CT to seek threat neutralization by maximizing capabilities and developing new resources in the area. The key to optimization is interagency synergy.

Compared with ad hoc action, sustained programmatic interagency coordination is difficult. But there is a

tradition of interagency cooperation, including in countering terrorism. JIACG/CT is developing a framework to reach beyond the military into diplomatic, law enforcement, and fiscal matters. As its mission statement indicates, this group "synchronizes and coordinates all [U.S. Government (USG)] and combined operations in PACOM . . . to develop targets for operations, plan regional and country CT campaigns, and enhance USG and host nation CT capabilities and capacity to support the war on terrorism."

To transition from the immediacy of actionable intelligence, the group has prepared for the long haul and developed a targeting concept aimed at terrorist leaders, finances, and infrastructure. As the status of the threat becomes clearer, such targets can be exploited, neutralized, or destroyed with all the instruments of national power.

In addition to targeting, JIACG/CT is planning an outreach program to expand and enhance the counterterrorism effort within the Government and the international community. Tasks will be pursued by increased awareness and information exchange as well as coordination of training and assistance programs. As previously noted, the group will not implement most of these activities but rather serve as a clearing house.

The improvement in counterterrorism capabilities includes the theater security cooperation plan, security assistance, foreign military sales, exercises, and international military education and training. Other agencies also have their own means, such as the antiterrorism assistance program of the Department of State. Not all these tools are appropriate for every nation. Collaboration will be required to tailor counterterrorism packages. Working with the diplomatic missions, the command will shape mission performance plans to reflect country-specific priorities for the war on terror.

There are obvious difficulties in pursuing this task. JIACG/CT does not have the authority to mandate or direct participation. Agencies do not operate differently simply for arbitrary reasons; they have legislative mandates and specific responsibilities.

Searching for victims in Bali, Indonesia.

AP / Wide World Photo

Camp X-Ray, Guantanamo Bay.

Fleet Combat Camera, Atlantic (Shane R. McCoy)

Staffing problems also exist among civilian agencies. Personnel assigned to groups range from ten to fifty, although NORTHCOM reportedly contemplates a larger organization. While the JIACG/CT concept calls for participation by civilian officials, staffs are overwhelmingly military (including Reservists on active duty). Most civilian agencies have fewer personnel available to assign than the Armed Forces, which means that the group lacks the optimal level of civilians.

Moreover, JIACG/CTs face technical issues related to interagency communication. Problems with secure connectivity and electronic collaboration among proprietary classified information systems have inhibited staffs from communicating with their parent agencies and each other. Even transferring security clearances between agencies is cumbersome. Finally there is a problem in differentiating between liaison and coordinating functions, an area that may determine the future of interagency organizations.

PACOM stresses simultaneous interagency efforts to counter terrorism across the region by applying instruments of national power in an integrated and synchronized manner. The command aims to coordinate international efforts to produce an effective regional counterterrorism campaign. The prerequisite for success is capitalizing on strengths of like-minded, responsible governments to spearhead the global war on terrorism within their own borders.

The scope of cooperation is remarkable. One could hardly have foreseen the overwhelming response to date. But much remains to be done on many fronts. The international and interagency landscapes are fertile ground on which to seek victory. Many security challenges will require new relationships and agreements for effective cooperation. The time is ripe to take cooperation in the region to the next level: seizing the opportunity and employing instruments at hand to defeat terror and the threat to civil society in law-abiding nations. **JFQ**

Checking vehicles for contraband.

Imperial War Museum

Civil-Military Operations
Joint Doctrine and the Malayan Emergency

By J O E L E. H A M B Y

How should the Armed Forces organize to work with civil authorities in military operations other than war (MOOTW)? The British experience during the Malayan Emergency from 1948 to 1960 was a case in which doctrine was wanting; yet the deficiency was offset by innovation and common sense. Success in countering the

communist insurgency in Malaya can be attributed to many factors, especially civil-military relations that were forged over time by military, police, and civil leaders. These officials cultivated linkages through hard work under trying conditions. Even though the doctrine found in Joint Pub 3-07, *Joint Doctrine for Military Operations Other Than War*, had not been written at the time, the British approach embraced similar principles. In a sense, events in Malaya anticipated the current doctrine. Both the government and security forces were crucial in Malaya, and how political

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Malay Peninsula

insurgent movement. At the time the government focused on hunting guerrillas and not on its own organization, which might have resolved the crisis. One aspect of counterinsurgency as iterated by a noted expert highlighted this point: "[The] government must give priority to defeating political subversion, not the guerrillas."[2] To succeed, counterinsurgency efforts must meet the true grievances of the people better than the insurgents. A mission analysis to aid in understanding and defining the problem seems critical. The first two years of the Malayan Emergency were spent in making such an assessment.

Despite a long tradition of subordinating military action to civil authority, relations between soldiers and civilians in Malaya were ineffective. A solution began to emerge with a concept that was drafted by Lieutenant General Sir Harold Briggs, Director of Operations, who issued what is known as the Briggs Plan in June 1950 (see insert). The scheme reorganized the government to handle the insurgency and temper the unrest from which the communists gained support. He believed there were "two key goals to accomplish in order to end the insurgency—first, to protect the population, and second to isolate them from the guerrillas."[3] The reorganization delineated the roles of both police and military and established a structure for coordination between executive committees, consisting of a chief federal agency and subordinate state and district war executive committees (SWECs and DWECs). As a study found, "The entire government effort—patrols, ambushes, intelligence, and population and food control—was directed by the war executive committees."[4] Although progress was not apparent until General Sir Gerald Templer was named as high commissioner in 1952, the basis for operations was established for the next decade. Effective civil-military relations ensured that the Briggs plan worked.

The Political Objective

"The government must . . . establish a free, independent, and united country which is politically and economically stable and viable." This was the first axiom of counterinsurgency that was espoused by the Permanent Secretary of Defence for Malaya, Sir Robert Thompson. His idea anticipated current joint doctrine. Britain had a clear political objective throughout the Emergency. Malaya would contribute to its upkeep and assist in postwar recovery. Appeal to self-sufficiency gradually evolved into a promise of independence within the Commonwealth. This objective also denied the insurgents one of their

and military leaders defined their roles and synchronized operations led to a British success.

The principles of MOOTW are objective, unity of effort, legitimacy, security, restraint, and perseverance. The first three were critical in suppressing the Malayan Communist Party, and their application enabled the other three objectives, and was built on strong civil-military relationships. Nonetheless it took twelve years to resolve the conflict, which began with the failure to appreciate counterinsurgency and measures required to win. "Although the British possessed a superior 'map knowledge' of the Malayan terrain," observed one report, "they initially lacked an understanding of the manner in which communist activities were adapted to the language, customs, and thought patterns of the population."[1] The army filled the void until a police infrastructure could effectively counter the
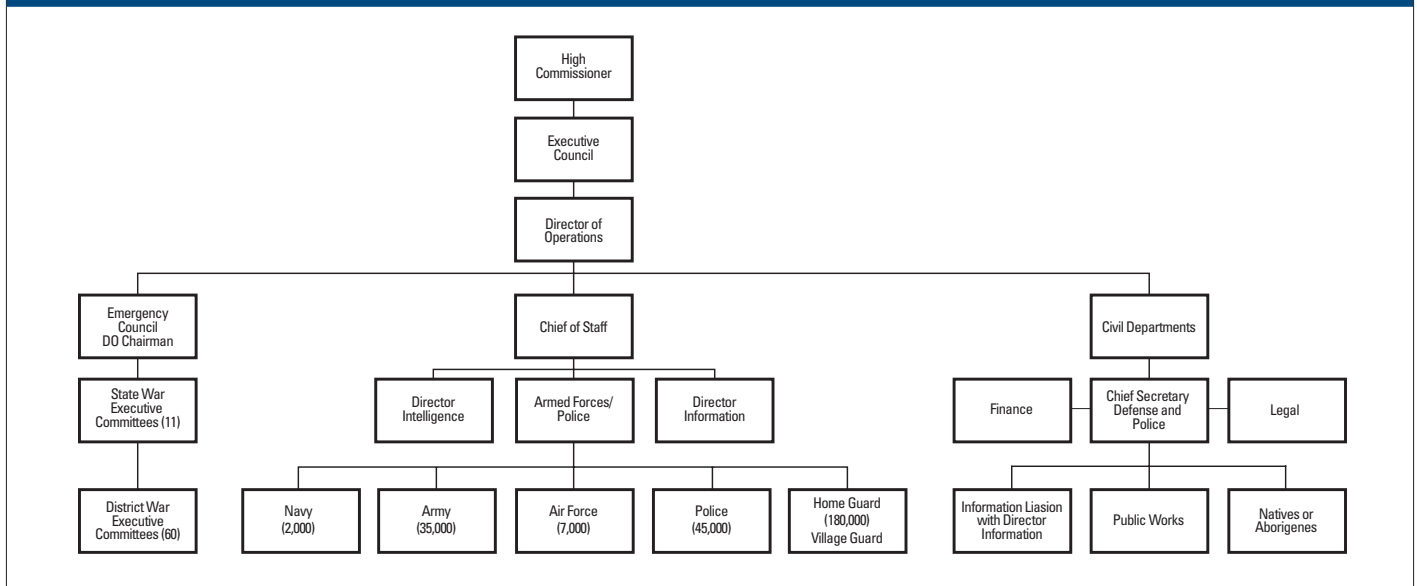
despite a long tradition of subordinating military action to civil authority, relations in Malaya were ineffective

Briggs Plan Organization

best propaganda themes—independence. As one analyst noted, "By deeds as well as words, the British managed to convince most of the people that Malaya was on the road to early independence. The visible progress in this direction—culminating in August 1957—certainly helped limit the insurgency's appeal."[5]

The viability of the government and loyalty of the people were decisive in fostering civil-military relations. A majority of Malays, Chinese, and British eventually embraced a common goal that allowed them to work together. According to one study, "This was not a situation, therefore, in which British administrators were giving orders to a subservient oriental population . . . as early as 1948, there was one chance in three that the senior administrator was himself Malayan. Persuasion and negotiation were the order of the day."[6] A unifying objective is decisive to synergy in a civil-military operation. Whatever the objective happens to be—stopping ethnic violence or providing disaster relief—it must be clearly and consistently defined by both civil and military players.

Unity of Effort

The Briggs Plan provided the civil-military effort with a sense of unity, but it did not go far enough. No one was put in full charge of the Emergency. As Director of Operations, Briggs had no formal control over the military and police. "He could only direct his intentions through the [general officer commanding] Malaya and the commissioner of police, and the executive impotence of this arrangement retarded the real effectiveness of his office."[7] Although the framework for combating the insurgency was set, the situation was not under control, and operations were not synchronized toward the established goal. Briggs left Malaya at the end of 1951 after laying the foundations for success: the police were being strengthened, resettlement of Chinese squatters was well underway, efforts against the insurgents were better organized under the committee system, and the general population was being swayed by the government information campaign. But Briggs recommended more power for his successor, such as executive control over the military and police. Both the largest tactical success and perhaps the greatest strategic failure for the communists occurred in October 1951 with the ambush of the High Commissioner of Malaya, Sir Henry Gurney. His murder shocked the entire colony and justified the extraordinary measures suggested by Briggs.[8]

The government chose Templer to lead the effort. Following the investigation of Gurney's death, the Secretary of State for the Colonies concluded that overall direction was lacking, stating "there must be one man in charge of both military affairs and . . . he would have to be a general."[9] Templer combined the positions of high commission and director of operations, providing the only instance of centralized control during the Emergency. Templer was a dynamic leader who used his influence to good effect without

Armored vehicles in jungle convoy.

abusing it. His success was both quantifiable and laudable, but he did not change course. He adhered to the Briggs approach, wielding wide powers to force results when nothing else worked, reaffirming the goal of independence for Malaya.

The impact that Templer had on civil-military relations was striking. Through the committee system, he applied pressure on an ill-prepared and poorly supported enemy. The civilian members of the committees far outnumbered the military except on the federal level. With counterinsurgency largely consisting of police work, the security forces spent most of their time on such tasks. Even when the army handed back this responsibility, the danger was real; police losses were double those of the military over the 12 years of the Emergency. This led to a lack of coordination in 1948–51. Templer introduced coherence and a

rather than an independent military intelligence chain, the government used the police special branch

sense of urgency. As one observer declared, "Now warfare by committee is positive anathema to the soldier . . . [but] the ponderous committee system was forced on us by the fact that in Malaya the army was acting merely in support of, and not in place of, the civil administration."[10] Interestingly, these organizations were action groups; component members were commanders or their representatives who could directly task subordinate units.

Over time this close relationship would create an organization that recognized its capabilities and used them synergistically. Partial proof was the fact that most units formed their headquarters in a joint operations room usually run by the police. "This close cooperation between the military and the police was the secret of all successful operations . . . it depended also on the personal relationships between us and the police," recounted one participant.[11] Rather than an independent

**African Rifles
searching hut.**

military intelligence chain, the government used the police special branch, which had unique public access as well as insights into Malay and Chinese society. The military provided liaison officers to this organization who translated police information into actionable intelligence. The Briggs Plan as emphasized by Templer allowed the system to function well.

"Any idea that the business of normal civil government and the business of the Emergency are two separate entities must be killed for good and all," Templer said. One of his first directives to the governor stated that "The two activities are completely and utterly interrelated."[12] The unity of effort that Templer contributed to the Briggs Plan permitted the government information effort to succeed in demoralizing the communists, emphasizing democracy, and improving morale. Before he arrived the campaign was flagging because of a lack of centralized direction. But in the right hands it took off, contributing in no small way to ending the Emergency.

Templer also emphasized the primacy of civic action, which included women's organizations, care of new villages, and emphasis on education that led to increased enrollment. He grasped the crux of the problem: "[It] was not enough for the government to do, and be, good; to be persuasive, it had also to appear good in the eyes and minds of the people."[13] Incidents were averaging over 500 per month when he arrived but dropped to under a hundred by the time of his departure. Civilian casualties fell precipitously, and insurgent strength was halved and their recruitment efforts sharply curtailed. Once Templer left, the roles of high commissioner and director of operations were again separated.

While less efficient, such means were no longer needed. The backbone of the insurgency was broken, and the committee system had enough experience to continue mopping up the enemy.

Legitimacy

Other efforts in support of the Emergency would have been in vain without maintaining the legitimacy of the government in the eyes of the people. After the murder of three planters in 1948, regulations were passed giving the police extra powers, in effect suspending *habeas corpus*. While these steps were severe, the British exercised restraint in enforcing them. However, most Malays and Chinese, because of the diligence of the government information campaign, came to recognize this fact. As one participant stated, "A state of Emergency is quite different from martial law. . . . The civil government—federal, state, district, and village—excised control throughout. The army acted in their support and always under their direction."[14]

Operating under these rules, published for all the population to see, the security forces were able to establish the perception that their actions were honorable, legitimate, and right for Malaya. Safeguards such as judicial appeal and the view of a benevolent hand in charge of the Emergency simplified the task of convincing the people that the government was acting in their best interests. When Templer imposed a 22-hour curfew and tight food controls on a village for failing to provide intelligence and succoring the insurgents in its midst, he did so under established rules. Searches and cordons were conducted appropriately during the Emergency. Although such measures were harsh, most local people understood and accepted the legitimacy of the government and supported efforts against the communists. While the security forces did at times violate the regulations, these instances were few, and offenders were harshly punished when their crimes came to light.

Further helping the government win credible coercive power in combating the communists was the fact that the information campaign was waged from a centralized headquarters. The enemy on the other hand was forced to rely on weakening communications and was separated from target audiences as resettlement plans got underway. The information war became more effective as the communists appealed to the use of terror to influence the people. It was also integral to the SWEC–DWEC system, which enhanced the legitimacy of the government. A.D.C. Peterson, Director of Information under Templer, considered his

The Briggs Plan

To establish proper administrative control in Malaya, the plan called for:

- ■ rapid resettlement of squatters under surveillance of police and auxiliary police
- ■ regrouping local labor in mines and on estates
- ■ recruitment and training of criminal investigation and special branch personnel
- ■ a minimum level of troops throughout the country to support police and concentrate forces for clearing priority areas
- ■ police and army operating in complete accord, with joint operational control on all levels and close integration of police and military intelligence.

It went into effect on June 1, 1950, and created state and district war executive committees (SWEC and DWEC) whose members made joint decisions and issued orders to subordinates through service chains of command to ensure complete integration of actions to support the civil power at all times

The Briggs Plan was intended to be thorough and long-term, with no expectation of speedy and decisive results. It envisaged clearing the country from south to north, leaving behind strong police and civil authorities once an area was secure. It also sought to isolate insurgents from rural populations to enable them to come forward with information. Moreover, it aimed at depriving the communists support and forcing them into the open to be dealt with by the security forces.

Source: The Conduct of Anti-Terrorist Operations in Malaya (Federation of Malaya, 1958), p. III-5-6.

programs of more use than psychological operations since the former also eventually reached the insurgents. As one analyst indicated:

[Peterson] *benefitted by the communists' dilemma as to the use of terror, a problem they never solved. Terror was the most effective means of attracting attention and exacting obedience from the people. Yet* [they] *also wanted and needed popular support. If they used terror, they risked alienating the people; if they did not use terror, they risked being ignored.*[15]

With the Briggs Plan (see insert above), the government seized the mantle of legitimacy while the insurgents found it slipping away. That allowed the civilian and military authorities to further isolate the communists from the population and increase their marginalization.

Restraint, Security, and Persistence

Most success derived from achievements elsewhere. Restraint, or using appropriate force to accomplish the mission, was realized with some of the same sources that constituted the bedrock of legitimacy. The military and police conducted operations in consonance with guidance found in a handbook entitled *Anti-Terrorist Operations in Malaya*. The measures became an effective set of rules of engagement that was well understood by military and civilians alike. For example, police were required to clear areas where the army was to operate to ensure that noncombatants were not accidentally injured. Similarly, the military could operate in cleared areas and, when appropriate, engage insurgents within their boundaries. The emergency regulations outlined in the handbook and the SWEC–DWEC system provided an organizational framework that facilitated close liaison which made government efforts effective.

Protecting the populace from the insurgents was accomplished by a series of measures that eventually made resettled people responsible for their own security. The Briggs Plan called for the formation of a home guard in new villages. It operated on three levels, closely monitored by the police. With the stick and carrot style of leadership carried out by Templer, insurgent incidents fell dramatically. Security followed common sense precautions, increasing the perceived legitimacy of the government. As communist activity ceased the British declared areas as white (pacified) and eased the emergency regulations, giving a distinct and achievable goal to local people. The transfer of power was slowly but visibly maintained. The Malaya Regiment was formed and led by Malay officers, and civil positions were opened to all ethnic groups including the Chinese. The loyalty of the people to British authority and a strong government structure contributed to this success.

Perseverance in the face of an insurgency is no easy task, but Britain handled it well and on the cheap. Without resources to wage large-scale operations after World War II, London was forced to be efficient. Persistence was incorporated into this low-cost structure because there were few short-term alternatives. Economic options took a long time to become effective. In addition, it was obvious that there would be few decisive battles and no roadmap for success. Victory would only be judged in hindsight.

Positive results through the vigorous application of the previously discussed five principles made it relatively easy to gird the population for the long haul once the organizational foundation was settled. The Briggs Plan, as executed by Templer and his successors, forced the civil-military relationship to work over a decade with constant results. Gradual milestones gave the government the freedom to destroy the communist movement.

RAF Hornets being refueled in Singapore.

Imperial War Museum

Civil-Military Relations

The model presented in Joint Pub 3-08, *Interagency Coordination during Joint Operations*, differs from the approach adopted in Malaya. Current doctrine assumes that the military will retain autonomy as a joint task force (JTF) or combatant command and organize civil-military operations centers (CMOCs) to coordinate activities. This does not necessarily suggest tasking authority, for unless they are assigned forces, such centers only have coordination authority. Their composition relies on the mission and commander but presumes that the military is the senior partner. Centers can be formed on any level deemed appropriate while larger organizations

current doctrine assumes that the military will organize civil-military operations centers to coordinate activities

(such as JTFs) are maintained. Although Joint Publication 3-08 lacks consistency in this area, it envisions that the military will be preeminent because of the absence of a functioning government, like Somalia and Kosovo. This approach may work in chaotic situations when nongovernmental organizations provide the bulk of aid. However, civil-military relations must be synchronized differently when governments remain functioning entities, even under grave circumstances. Though joint doctrine directs that maximum flexibility and cooperation must be used to deal with governmental or nongovernmental partners, it confounds more than enlightens.

The British committee system was similar in composition to the CMOC model proposed in joint doctrine. The committee was the hub of activities within a given region. It coordinated and rendered larger organizations such as the division into force providers. Operational decisions were made through the war executive committees, un-

Valetta dropping supplies at Fort Kemar.

Imperial War Museum

like existing doctrine. Such bodies coordinated and synchronized operations and other forms of civil and military affairs. Information operations were also executed through them, with overall guidance and assets provided by higher authorities. Daily meetings of the executive committees, commonly known as morning prayers, functioned along similar lines to a joint targeting coordination board, using intelligence to alter and synchronize operations on the ground. The current model does not provide effective unity of effort in situations when civil governments remain even marginally effective, such as in Malaya.

British forces were subordinated to the operational efficiency of the Briggs Plan. "As far as I can see," Thompson claimed, "the only thing a divisional commander has to do in this sort of war is to go around seeing that the troops have got their beer."[16] Although the military was uneasy about the arrangement until tangible results were achieved, it made the committee structure meet its objectives. Existing organizations were tailored to fit the committees and eliminate redundancy. Parochialism was overcome. The Malaya Emergency serves as a model for operations conducted by an established government which retains its legitimacy. Yet it should be remembered that each MOOTW occurs within a discrete environment.

Although CMOC as described in Joint Pub 3-08 will work in certain situations, in the end it is simply a technique, like the British approach in Malaya. Joint forces must be tailored to achieve overall strategic objectives. The flexibility and initiative to do whatever works should be carefully considered in forming organizations. An effective and credible mission analysis is a prerequisite, since one cannot prevail over what one does not understand. The principles of MOOTW combine with common sense to provide a basis for such operations. And the organization introduced under the Briggs Plan supplements the guidance found in current joint doctrine. **JFQ**

NOTES

[1] James E. Dougherty, "The Guerrilla War in Malaya," *U.S. Naval Institute Proceedings,* vol. 84, no. 9 (September 1958), p. 46.

[2] Robert G. Thompson, *Defeating Communist Insurgency: The Lessons of Malaya and Vietnam* (New York: Praeger, 1966), p. 55.

[3] Jerome F. Bierly and Timothy W. Pleasant, "Malaya—A Case Study," *Marine Corps Gazette*, vol. 74, no. 7 (July 1990), p. 48.

[4] Riley Sunderland, *Organizing Counterinsurgency in Malaya: 1947–1960* (Santa Monica, Calif.: The RAND Corporation, September 1964), p. viii.

[5] Robert W. Komer, *The Malayan Emergency in Retrospect: Organization of a Successful Counterinsurgency Effort* (Santa Monica, Calif.: The RAND Corporation, February 1972), p. 64.

[6] Sunderland, *Organizing Counterinsurgency*, p. 11.

[7] John Coates, *Suppressing Insurgency: An Analysis of the Malayan Emergency, 1948–1954* (Boulder, Colo.: Westview Press, 1992), p. 95.

[8] Noel Barber, *The War of the Running Dogs: The Malayan Emergency, 1948–1960* (New York: Weybright and Talley, 1971), pp. 130–32.

[9] Coates, *Suppressing Insurgency*, p. 111.

[10] Richard Miers, *Shoot To Kill* (London: Faber and Faber, 1959), p. 39.

[11] Anthony Crockett, "Royal Marines: Action in Malaya," *Marine Corps Gazette*, vol. 39, no. 1 (January 1955), p. 31.

[12] Sunderland, *Organizing Counterinsurgency*, p. 64.

[13] Riley Sunderland, *Winning the Hearts and Minds of the People of Malaya: 1948–1960* (Santa Monica: The RAND Corporation, September 1964), pp. 29–32.

[14] Richard L. Clutterbuck, *The Long, Long War: Counterinsurgency in Malaya and Vietnam* (New York: Praeger, 1966), p. 36.

[15] Sunderland, *Winning the Hearts and Minds*, pp. 30–32.

[16] Thompson, *Defeating Communist Insurgency*, p. 61.

B–1B bombers during training mission.

Strategic Attack

By HAL M. HORNBURG

S trategic attack is one of the most effective options for joint force commanders. Properly used, it can directly influence enemy leadership and significantly shape the joint campaign. Despite its potential, it is the least understood mission in the joint arena. This is a cultural phenomenon: the senior leaders of every service grew up with different perspectives of the strategic, operational, and tactical levels of war. They also have different historical views of joint warfighting.

Much of the misunderstanding involves qualities often ascribed to various types of aircraft. Many view bombers in a Cold War context, identifying them with nuclear weapons and strategic bombardment conducted in World War II. The Air Force moved a decade ago to correct this image by

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integrating strategic and tactical capabilities into a single functional organization, Air Combat Command. This change recognized that aircraft themselves are not strategic or tactical; their effects are strategic or tactical. Yet some still perceive fighters as tactical and bombers as strategic.

This outlook gives rise to skepticism outside the Air Force at the mention of strategic attack as an option. Moreover, it misses a chance to influence military thinking, because strategic attack is more than a mission—it is focused on defeating an enemy targeted as a system.

Historical Perspectives

In the past the ultimate objective of war was engaging and defeating fielded enemy forces. The strength of opposing armies and navies determined the ability to resist. If defeated, the enemy capital and countryside were laid bare. Conflicts were often decided by a single decisive battle.

B–17s over Europe in September 1944.

The idea of victory changed with the industrial age. Land forces required vast resources to sustain operations, creating new vulnerabilities. Although supplies could be disrupted by cavalry-type action, only deep penetration by regular armies could threaten or destroy them. First, one had to defeat or at least deflect enemy forces. Sherman's march through Georgia during the Civil War illustrates the effectiveness of this approach. Yet as mobility and firepower grew in late 19th and early 20th century conflicts, evenly-matched armies fought protracted wars of attrition to consume enemy assets. World War I was characterized by sustained attrition, with protagonists committing more men and matériel until the other side exhausted its assets.

Some theorists saw an alternative with the emergence of airpower in the early 20th century. They envisioned being emancipated from head-on battles of attrition. Instead, bombardment could directly attack enemy populations and infrastructure. Friendly land forces could engage an enemy and create a demand on its assets even as airpower cut off industrial production. With the resource base eliminated through air action, enemy forces would weaken and their will to fight would erode, leading to collapse and capitulation. Airpower theorists appreciated this concept from the start and refined it following World War I.

But theory and practice proved to be difficult to reconcile. With development of long-range bombers in the 1930s, the Royal Air Force and

in Europe, more than 60,000 Allied airmen lost their lives in the combined bomber offensive alone

U.S. Army Air Forces thought that this theory had been put into practice. With the outbreak of World War II, the Allies faced an anti-access scenario and turned to the only weapon available. British Lancasters and American B–17s demonstrated the potential to strike deep into Germany. However, a mismatch between offensive and defensive was clear. Both sides engaged in attrition in the skies over Europe. Ultimately, Allied forces won the key battle for air superiority in early 1944, opening the German heartland and its industrial capacity to direct and sustained aerial attack. Air superiority coupled with strategic bombardment devastated the enemy infrastructure, paving the way for victory. In the Pacific, airpower enabled strikes on Japan, culminating with the use of atomic weapons.

Both victories were costly. In Europe, more than 60,000 Allied airmen lost their lives in the combined bomber offensive alone. Yet the casualties would likely have been much higher and the war probably would have lasted longer without an alternative to surface warfare. Airpower and strategic bombardment indeed proved their ability to directly attack the homeland and resource base of the enemy, shortening the conflict.

Airmen continued to refine doctrine and improve capabilities after World War II. However both the Korean and Vietnam conflicts produced more lessons in attrition-based warfare. Vietnam, like World War I, provided glimpses of what could be done. Technological innovation in the form of laser-guided bombs hinted at precision attack. The Linebacker II campaign illustrated the impact of airpower on the will of enemy leaders when unleashed in appropriate strikes. But it would be two decades before these developments would be crystallized in a clear vision.

A New Age

Another vision became clear in January 1991. Coalition forces led by the United States were tasked to eject the Iraqi army from Kuwait. Various strategies were considered, from a direct Air-Land Battle-type of assault to an air campaign focused on enemy political and military leaders. The joint force air component commander led the effort to refine and execute an air campaign plan that devastated the Iraqis in ways not directly connected to land warfare. U.S. Central Command largely adopted this plan as the centerpiece of its strategy. The resulting effort took advantage of both qualitative and quantitative advantages of coalition airpower and spacepower to directly attack the enemy ability to monitor and command forces and resources. At the same time, Iraqi units in the field, cut off from their command elements, came under direct air assault.

F–117 during live-fire weapons test.

U.S. Air Force (Edward Snyder)

The result was staggering. Advances in stealth technology, precision munitions, command and control, intelligence, and air defense suppression led to a revolution in the conduct of warfare. Stealth fighters struck leadership targets in Baghdad with unprecedented precision and significantly crippled the regime during the first hours of the conflict. Command networks were attacked and air defenses were blinded. Infrastructure such as petroleum, power plants, and transport also were hit with remarkable effectiveness and minimal collateral damage. And civilian casualties were low. In the first day of operations, coalition air forces attacked more targets than the Eighth Air Force in Europe during 1942 and 1943. When land forces crossed the border into Kuwait 38 days later, the Iraqis were all but routed.

Iraq fielded half a million battle-hardened troops and advanced aircraft and air defenses to protect its territory, but the war was one-sided. The Coalition did not do what the enemy expected—a symmetric ground attack—and instead concentrated airpower on the heart of the Iraqi military and command structure. The air plan sought to defeat the enemy as a system. To do this, it employed the concept of strategic attack.

Not simply a concept but a mission, strategic attack builds on the notion that it is possible to directly affect enemy sources of strength and will to fight without having to engage in extended attritional campaigns to defeat hostile forces. Consideration of an effects-based approach clarifies the essence of strategic attack. Modern societies are highly interconnected. With strategic attack,

the Gulf War realized a dream long held by airmen: unrestricted, aggressive use of airpower

an enemy can be affected by isolation, deception, or exploitation. Its forces can be severed from leaders and its capacity to sustain essential activity can be directly targeted. Given these factors, strategic attack can be defined as offensive action by command authorities to generate effects that most directly achieve national objectives by affecting enemy leadership, conflict-sustaining resources, and strategy.

While strategic attack in most instances will not totally eliminate the need to engage fielded forces—in certain cases attacking forces may accomplish strategic effects—it can shape engagements to fight at a time and place and under conditions favorable to decisive outcomes with the least risk to friendly forces. Under the right conditions, an aggressive use of airpower and spacepower in executing strategic attack may reduce land forces needed for termination, thus endangering fewer lives.

The Gulf War also highlighted another aspect of airpower and spacepower in conducting strategic attack: parallel operations. After the Vietnam conflict and through most of the Cold War, planners generally held a sequential view of air operations. Because the first prerequisite of every successful air and surface operation is requisite air superiority, airmen planned initially for an air defense suppression campaign. Once enemy defenses were dealt with, follow-on air attacks could commence. Desert Storm illustrated that precision and stealth capabilities enabled all manner of attacks to occur simultaneously. The possibility of holding everything at immediate risk—and providing overwhelming shock—is an important aspect of strategic attack.

After the Storm

The Gulf War realized a dream long held by airmen: unrestricted, aggressive use of airpower to directly influence the outcome of warfare. Despite its success, and aside from arguments over sequencing both land and air components, Desert Storm can still be categorized as an industrial age conflict—a large conventional conflict with massed forces. Different wars would be waged in the 1990s for different ends, using the same tools but in different ways. Military power, and especially airpower and spacepower, would be tasked to conduct less than total war to perform tasks previously held unworkable: coercion and punishment. In each case, strategic attack evolved to occupy a more nuanced role.

Operation Deliberate Force (Bosnia-Herzegovina). The North Atlantic Treaty Organization had a problem in 1995. An intransigent Serbian leader, Slobodan Milosevic, engaged in a program of ethnic cleansing that threatened to destabilize the Balkans. His indifference to appeals for peace

F–105s over Vietnam.

U.S. Air Force History Office

threatened Allied credibility. Serbian forces in Bosnia, although outnumbered, had clear numerical superiority in armored vehicles and artillery. They employed these forces with superior mobility to dominate Bosnian Muslim and Croatian troops. After a series of embarrassing incidents, NATO, with United Nations approval, launched air strikes to force Milosevic into negotiating.

The Alliance selected a straightforward strategy: air attack on the Bosnian Serb leaders and war-sustaining advantages. Fielded forces were not attacked as a principal objective. Instead key communications nodes, logistic infrastructure, and transportation lines were struck. These assets gave the Serbs superior mobility to create tactical advantages at the time and place of their choice. With these enablers eliminated, the Serbs found themselves on a par with the Bosnian Muslims and Croats. By putting Milosevic and his forces at risk, NATO held his objectives at risk.

Working from U.N. and Allied objectives, the combined forces air component commander developed the air operation plan to "execute a robust NATO air operation that adversely alters the [Bosnian Serb army] advantage in conducting successful military operations against [Bosnia and Herzegovina]." The desired endstate was compelling the Bosnian Serbs to sue for a cessation in military activity, comply with U.N. mandates, and agree to enter into negotiations.[1]

The effect of the air operation was almost immediate. The Serbian forces became isolated on battlefields which they previously dominated. A Croatian ground offensive in western Bosnia made the effects of NATO operations clear. Cut off and lacking their previous command, control,

and mobility advantages, the Serbs suffered the disadvantage of exterior lines of communication. The result was a near collapse of their resistance in that region.

Deliberate Force was an air operation designed to achieve a strategic effect, the coercion of Milosevic. Isolating Bosnian forces through selectively attacking critical leadership, infrastructure, and command and control targets brought him to the table. With these attacks, the Alliance could govern the pace of operations and either increase or decrease the pressure as necessary to achieve desired political and military effects. Importantly, precision attacks enabled the Alliance to sustain support by minimizing collateral damage and civilian casualties. The effectiveness of air operations was undeniable—it was due to the strategic application of airpower.

Allied Force (Yugoslavia). Milosevic again proved his indifference to international anxiety in 1998 over the treatment of Albanians in the semiautonomous area of Kosovo. After acquiescing to demands for more transparency, Milosevic ignored calls to protect ethnic Albanians. With the breakdown of negotiations, the Alliance initiated combat air operations once again.

NATO opted for another air operation for many of the same reasons that figured into its decision in 1995. But instead of initiating a regular, well-developed campaign, the thrust began as a repeat of Deliberate Force, with a series of limited air strikes calculated to pressure Milosevic to negotiate. Thus the initial target sets were strictly limited to a similar set of air defense, command and control, and limited military infrastructure targets. But Milosevic did not respond in the same manner that he had in 1995. Instead, almost simultaneous with the start of the operation, he began ethnic cleansing in Kosovo, changing the character of the war.

Public opinion demanded that NATO forces counter ethnic cleansing and protect the fleeing Albanians. The planners were caught short. They had been told not to look beyond limited strikes initially and had no means of significant change beyond the signaling mission. As political leaders sought consensus within the Alliance on the direction of the war, coalition planners were instructed to keep the pressure on Milosevic and increase operations against the Serbian forces in Kosovo and military infrastructure targets surrounding the province.

During a month of strategic uncertainty, a debate emerged among Alliance leaders that led to two views. One held that it was necessary and sufficient for air forces to sustain their attacks on fielded forces to ease pressure on the Albanians

100th Communications Squadron (Randy Mallard)

B–52s on mission,
Allied Force.

and weaken control over the province by Belgrade. The reason for a limited operation was that little agreement existed for anything else, especially for the introduction of ground forces. In fact, even planning for wider activity threatened cohesion. The other view, largely advanced by Allied air planners, contended that airpower was not suitable in stopping deployed Serbian forces engaged in ethnic cleansing. Instead, the most effective way of gaining compliance with NATO demands was applying direct pressure on Yugoslav leaders and their political and social apparatus. In sum, if airpower is the instrument of choice, it must be used in its most decisive form—strategic attack. As one senior officer commented, "Airpower could not stop the door-to-door . . . thuggery and ethnic cleansing . . . directly. The only way [was] taking it to the heart of the matter—in this case, to Belgrade."[2]

Largely because of the ineffectiveness of limited air operations, enough support emerged to conduct a more direct attack on strategic assets to bring about compliance with Alliance demands. According to the air component commander, U.S. European Command was certain that sustained and parallel operations could be conducted with available airpower and that forces in Kosovo could be attacked while other "more lucrative and compelling targets" were struck in Serbia proper.[3]

Thus NATO expanded the air operation from the Kosovo-centric attrition of forces to more attacks on political-military leadership and dual-use facilities. Some assets of the ruling elite were deliberately targeted to put pressure on Milosevic and cause more stress within Serbia. The attacks on Serbian forces in Kosovo were maintained. Up to half of daily sorties were flown against them with mixed results. Although there is evidence that attacks limited the enemy ability to mass and maneuver, the extent to which they pressured Belgrade to eventually comply is less apparent.

The strikes against political and industrial infrastructure had more telling effects. The price of a sustained conflict was becoming evident. Bombing and sanctions were devastating an already soft economy. Raids on factories led to layoffs, driving up unemployment. Attacks on businesses owned by associates of Milosevic bred tension and uncertainty. Cutting electrical and fuel supplies not only limited military options but dramatically increased anxiety. The strikes on Serbia far more than attacks on fielded forces in Kosovo

compelled Milosevic to relent. It was strategic attack—in this case using airpower and spacepower—that had the desired coercive effect.

Enduring Freedom (Afghanistan). Another application of strategic attack that employed joint air as well as space assets against enemy leaders and resources was Afghanistan beginning in 2001. In the opening stages of the operation, airpower and spacepower was used to induce Taliban forces to flee and to destroy terrorist bases.

airpower and spacepower was used to induce Taliban forces to flee and to destroy terrorist bases

As a result, in conjunction with support to local fighters, coalition air and maritime forces, and Special Operations Forces, the regime in Kabul was changed within two months. The asymmetry of modern air and space capabilities supported by surface operations resulted in the desired strategic effect.

In the above conflicts, strategic attack was the choice of U.S. leadership. NATO airpower twice coerced an enemy to meet its demands. On both occasions the Alliance pressured a regime to comply through attacks on essential resources, carefully selected for the effect on decisionmakers. At the same time, the attacks avoided the civilian casualties and collateral urban damage associated with earlier bombing campaigns and enabled NATO to use enough pressure to end both conflicts. In Afghanistan, air and space forces projected asymmetric power rapidly, lessening the vulnerabilities, risks, and time normally associated with deploying large ground forces. Although some civilian casualties and collateral damage did occur, the losses paled in comparison to three years of fighting in Bosnia, a decade of repression in Kosovo, and the suffering of the Afghan people, as well as continued global terrorism had the Taliban remained in power.

America has been involved in four significant conflicts over the last decade. In each case, joint airpower and spacepower provided compelling asymmetric advantages to achieve the desired effects. The potential of strategic attack was demonstrated in arguably the most effective, efficient, and humane military operations in history. The ability to directly apply force on enemy leadership, constrict resources, and restrict strategic choices is a valuable tool in an increasingly hostile world. With advances in air, space, and information capabilities, desired effects can be increased through these capabilities. In that regard, two factors are noteworthy:

■ Asymmetric advantages in the battlespace derive increasingly from U.S. air, space, and information capabilities.

■ These capabilities allow the Nation to directly influence enemy leadership, destroy or neutralize enemy resources, and control the pace of enemy operations while minimizing collateral damage and civilian casualties.

The national leadership is calling on strategic attack as the mission of choice to coerce, punish, and compel enemies. To support such objectives, the military must consider the best way of achieving this new type of mission.

Strategic attack is critical for joint operations. The extent to which each service contributes to this mission depends on the situation and corresponding objectives. Strategic attack provides joint force commanders with a flexible option to strike enemies and achieve effects on the strategic level. Doctrine is being written to articulate enduring tenets of strategic attack and enhance understanding of the concept in the joint community. Developing and employing these capabilities provides the Armed Forces with a range of options to achieve military objectives.   **JFQ**

NOTES

[1] Michael O. Beale, "Bombs Over Bosnia: The Role of Airpower in Bosnia-Herzegovina," student thesis, School of Advanced Airpower Studies, Maxwell Air Force Base, Ala., 1996, https://research.maxwell.af.mil/papers/student/ay1996/saas/beale_mo.pdf, p. 58.

[2] John A. Tirpak, "Lessons Learned and Relearned," *Air Force Magazine*, vol. 82, no. 8 (August 1999), pp. 23–25.

[3] John A. Tirpak, "Short's View of the Air Campaign," *Air Force Magazine,* vol. 82, no. 9 (September 1999), pp. 50–55.

Pursuing innovation at sea.

From Revolution to Transformation

The State of the Field

By I A N   R O X B O R O U G H

While transformation means different things to different people, there are two main schools of thought on this subject. One identifies transformation exclusively with the revolution in military affairs (RMA) and the other perceives it more broadly, as a process of adapting the Armed Forces to the security challenges of the post-Cold War era.

Transformation is not synonymous with modernization. According to the *U.S. Air Force Transformation Flight Plan*, the former leads to major improvements in warfighting capabilities and the latter involves incremental upgrades. There is no single metric or framework that distinguishes among concepts that are transformational and those that are not. "In the end, determining what is transformational comes down to qualitative judgement calls by informed senior leadership."

To indicate that transformation is a matter of judgement implies that the process of defining it will continue to

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F–35 undergoing flight test.

Lockheed Martin

be debated by the military, with clear implications for service cultures, budgets, and programs. Subtle semantic and conceptual differences remain key to this struggle. Each service has an idea of future warfare, and rhetorical confusion is likely as various actors invoke terms differently. In the end, definitions alone will not resolve differences over transformation.

Intellectual Origins

During the 1980s the Soviet Union came to the realization that the United States was on the verge of a technological leap. Marshall Nikolai Ogarchov referred to *military-technical revolution*. The concept was subtly changed in the Department of Defense by Andrew Marshall of the Office of Net Assessment. The new term, *revolution in military affairs*, was intended to suggest that more than technological advances were involved. It included not simply systems, but new doctrine and organizations. As the current Secretary of Defense, Donald Rumsfeld, has said, "All the high-tech weapons in the world won't transform the U.S. Armed Forces unless we also transform the way we think, train, exercise, and fight."[1]

Controversy over an American RMA intensified in the early 1990s. A number of questions were raised. What is RMA? What sort of revolutions have occurred in the past? What lessons do

previous revolutions hold for transformation? Could a revolution be deliberately fostered?

Some issues have been resolved and several points of contention better defined. It is clear that there are instances when the maturation of technology, or the confluence of appar-

there seems to be a better chance of controlling and shaping RMA on the operational level

ently discrete changes, produces a quantum leap. But a continuing debate over whether change is evolutionary or revolutionary, even with regard to the same process—incremental change resulting eventually in dramatic consequences—has led some to conclude that the issue is about semantics.

Two definitions have emerged. Some conceive of RMA as a relatively rapid change on the operational level of war usually brought about by harnessing new technologies to new concepts of operations. The introduction of *Blitzkrieg* and aircraft carriers are popular examples. Others have identified what they call *military revolutions*, epochal upheavals in which a society is transformed. As two noted historians

have observed, "Military revolutions recast society and the state as well as military organizations."[2] While most planners regard the revolution in military affairs in a limited operational sense, innovators such as Vice Admiral Arthur Cebrowski, USN (Ret.), envision that a new epoch, the information age, is emerging and that the basic rules of conducting warfare will be changed. This is a conception of revolution in the larger sense.

There seems to be a better chance of controlling and shaping RMA on the operational level. How should the military take advantage of revolution? The research on innovation has suggested the value of stimulating open debate and sponsoring and protecting revolutionary thinkers on lower levels. Organizations can grasp the essence of such a revolution through genuine experimentation and refining concepts based on realistic assessments of lessons learned.

Recent thinking has focused on the implications of advances in computing and information technology. The former Vice Chairman of the Joint Chiefs, Admiral William Owens, USN (Ret.), was among the first to suggest that the Armed Forces could achieve information superiority. By integrating a *system of systems*, a picture of the battlespace measuring 200 miles on each side could be created. Linking command, control, communications, computers, intelligence, surveillance, and reconnaissance (C^4ISR) systems can provide information superiority—or dominant battlespace knowledge—and enable a quantum leap in operations. The fog of war would be dissipated.[3]

But some doubt that the revolution is going in the right direction. Williamson Murray and Macgregor Knox point to an "astounding lack of historical consciousness" by the utopians.[4]

Perhaps the most striking claim of contemporary Beltway pundits is that technological innovation, particularly in information technology, will purge the conduct of war of the uncertainties and ambiguities of the past. For those happy powers that set the technological pace, war will

Figure 1. Military Revolutions and Military-Technical Revolutions

Theoretical Level	Term of art	Practical Level of Influence
Grand Strategy	Military Revolutions	economy, industrial structure, demography, sociology, strategic,culture
Strategy	Military-Technical Revolutions	services, army groups, fleets, etc.
Operational		system of systems, corps and armies
Tactics		weapons, logistics, systems, troops

Figure 2. Military Revolutions and Revolutions in Military Affairs

Period	Military Revolutions	Revolutions in Military Affairs
17th century		
	Modern state and modern military institutions	Dutch and Swedish tactical reforms, French tactical and organizational reforms, naval revolution, British financial revolution, French reforms (after Seven Years' War)
Late 18th–19th century		
	French Revolution	National political and economic mobilization, Napoleonic warfare
18th–19th century		
	Industrial Revolution	Financial and economic power based on industrialization, technological revolution in land warfare, revolution in naval warfare
Early 20th century		
	World War I	Combined-arms tactics and operations, *Blitzkrieg*, strategic bombing, carrier and submarine warfare, radar and signals intelligence
Mid to late 20th century		
	Nuclear weapons and ballistic missiles	Precision reconnaissance and strike, stealth, revolution in C3I, increased lethality of conventional munitions

become an essentially frictionless engineering exercise. . . . The utopians' 'face of battle' is a bank of computer displays, and in their fond imaginings war is nothing more than dealing out punishment in doses precision-calculated to send political signals to keep the natives under control.[5]

Others argue that real transformation is looming in irregular warfare—an area that is ill suited for the high-tech revolution in military affairs which the United States is pursuing.

These concerns notwithstanding, the notion that we are in the midst of a revolution of some sort rapidly won acceptance in official circles. As early as 1995 the annual report of the Secretary of Defense made a two-paragraph reference to "the so-called revolution in military affairs."

Official Acceptance

The promise of the *information revolution* was taken up by the Chairman with publication of *Joint Vision 2010* in 1996. This document recognized that technological change could enable new levels of performance across a full range of military operations. Information superiority would be enabled by four operational concepts: dominant maneuver, precision engagement, full-dimensional protection, and focused logistics.

JV2010 provided a short-term vision with specifics to be worked out later. It was followed by *Concept for Future Joint Operations* in 1997, and *JV2010* was revamped as *JV2020* in 2000. But just what this vision meant in terms of acquisition programs was left undetermined.

Acceptance of the revolution in military affairs gained ground with the *Quadrennial Defense Review* (QDR) and National Defense Panel report, *Transforming Defense,* which both appeared in 1997. QDR largely reiterated a two-major theater war posture and appropriate force structure. It also acknowledged the existence of a continuing RMA and asserted that transformation "centers on developing the improved information and command and control capabilities needed to significantly enhance joint operations."

The National Defense Panel accepted that a revolution was underway and urged that transformation should be pursued to stay abreast of changes in the conduct of warfare:

We are on the cusp of a military revolution stimulated by rapid advances in information and information-related technologies. This implies a growing potential to detect, identify, and track far greater numbers of targets over a larger area for a longer time than ever before, and to provide this information much more quickly and effectively than heretofore possible. Those who can exploit these advantages–and thereby dissipate the fog of war—stand to gain significant advantages . . . [DOD] *should accord the highest priority to executing a transformation for the U.S. military, starting now.*

The annual report of the Secretary of Defense for 1997 moved from positing a *so-called* to an *emerging* RMA and described the core concepts of *JV2010.* Transformation loomed large in the annual report for 1998, declaring that DOD "has embarked on a transformation strategy to meet the challenges of

T he Secretary of Defense has described transformation as "not a single thing to be trotted out and looked at and inspected. Simply put, transformation is change. It's change in the way we fight, in the way we train, in the way we exercise, but especially, it's change in the way we think and how we approach our jobs." The Director of Force Transformation, Vice Admiral Arthur Cebrowski, USN (Ret.), has established five top goals in this regard:

■ make force transformation a pivotal element of national defense strategy and DOD corporate strategy effectively supporting the four strategic pillars of national military strategy

■ change the force and its culture from the bottom up through the use of experimentation, transformational articles (operational prototyping), and the creation and sharing of new knowledge and experiences

■ implement network centric warfare as the theory of war for the information age and the organizing principle for national military planning and joint concepts, capabilities, and systems

■ get the decision rules and metrics right and cause them to be applied enterprise wide

■ discover, create, or cause to be created new military capabilities to broaden the capabilities base and mitigate risk.

Reconnaissance-strike complex and *military-technical revolution* were two terms originally used in the Soviet Union and by some analysts in the United States (especially within the Office of Net Assessment at the Pentagon) to highlight the consequences of improved and dual-use technologies on the conduct of war.

A *revolution in military affairs* (RMA) is defined somewhat more broadly, but still relates to the tactical and operational (perhaps even the strategic) levels. Andrew Marshall, Director of Net Assessment, is sometimes called the father of RMA—or at least of the term. He has defined these revolutions as "Fundamental, far-reaching changes in how advanced militaries either plan to conduct, or actually prosecute, military operations." Appearing before the Senate Armed Services Committee in 1995, Marshall elaborated on this concept:

The term revolution *is not meant to insist that change will be rapid . . . but only that the change will be profound, that the new methods of warfare will be far more powerful than the old. Innovations in technology make a military revolution possible, but the revolution itself takes place only when new concepts of operations develop, and, in many cases, new military organizations are created.*

Military revolution is a concept suitable for grand strategy, defined by Williamson Murray and Macgregor Knox as follows:

Military revolutions . . . fundamentally change the framework of war. . . . [They] recast society and the state as well as military organizations. They alter the capacity of states to create and project military power. And their effects are additive.   **JFQ**

the 21ˢᵗ century." The Pentagon now *embraced* RMA, which was seen as *critical* to defense strategy. Three chapters were focused on "Transforming the U.S. Armed Services for the 21ˢᵗ Century," with one given over to RMA and *JV2010.* For the first time, there was a chapter on new operational concepts.

Network Centric Warfare

A further conceptual development emerged from ideas on integrating disparate elements of the fleet—or network centric warfare (NCW). The Navy had been thinking about networked fleet operations since the late 1980s. The concept was simple on one level, highlighting the advantages of the revolution in information technology. Borrowing from work originally done by futurists and business leaders, advocates argued that networks were the wave of the future.[6]

Networking large numbers of disparate and dispersed sensors, shooters, and deciders can generate information superiority. Massed precision effects can

foreclose options and shock an enemy into collapse by increasing the speed of command and facilitating the self-synchronization of the component parts of the Armed Forces. Critical in this new era is how components of organizations will be linked. In this sense, the new

network centric warfare can be seen as an approach that emphasizes devolved command and control

way of conducting operations is network centric rather than centered on tightly integrated stand-alone weapons platforms coordinated through a vertical chain of command. If networks are the organizing principle for the information age, network centric forces should usually defeat forces still organized for the industrial age.

NCW can be understood on different levels. Strategically, it is a theory of

epochal change in warfare in the information age. On the operational level it is about integrating sensors, shooters, and deciders to achieve new degrees of effectiveness. Finally, NCW can be seen as the elaboration of an approach to warfare that emphasizes devolved command and control. Relying on metaphors borrowed from evolutionary biology and complexity theory, it proposes a solution to the command and control problems generated by the increasingly complex nature of modern war. The concepts of self-synchronization, co-evolution, and complex adaptive systems in particular are seen to offer insights into the new ways military organizations will operate.

Concepts of Operations

Speedy maneuver and precision strike hold the potential for rapid collapse of enemy forces while simultaneously protecting friendly forces. This
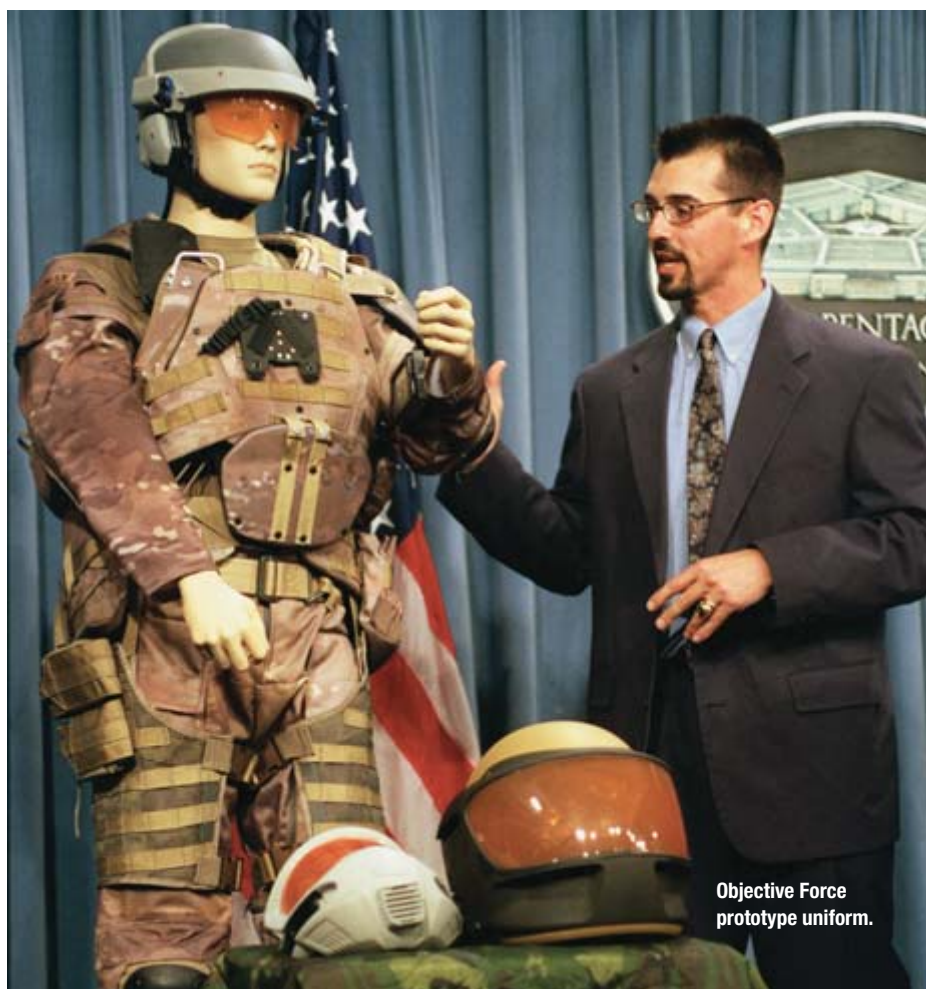
Objective Force prototype uniform.

DOD (R.D. Ward)

emphasis on a rapid tempo of operations is most clearly articulated in the concept of rapid decisive operations (RDO) developed principally by U.S. Joint Forces Command (JFCOM). It is defined as the essence of military transformation, whereby:

The U.S. and its allies asymmetrically assault the adversary from directions and in dimensions against which he has no counter, dictating the terms and tempo of the operation. The adversary, suffering from the loss of coherence and unable to achieve his objectives, chooses to cease actions that are against U.S. interests or has his capabilities defeated.[7]

The Air Force is foremost in developing a linked concept, effects-based operations (EBO). While RDO refers to

how operations are conducted, EBO refers more to the purpose of operations. JFCOM refers to it as "a process for obtaining a desired strategic outcome or effect on the enemy, through the synergistic, multiplicative, and cumulative application of the full range of military and nonmilitary capabilities at the tactical, operational, and strategic levels." In other words, the Armed Forces may use indirect and second- or third-order effects to achieve their aims against an enemy. In many respects EBO is a continuation of a longstanding effort to achieve decisive victory through airpower. Such notions are expressed in terms like *parallel warfare* and thinking about an enemy as a system using the concentric ring metaphor.[8]

Some analysts have been impressed by shock and awe, which is accepted in some circles as an intrinsic

part of RDO. When faced by overwhelming U.S. capabilities, an enemy will simply collapse. It will be shocked and awed and cease to function. It will no longer need to be eliminated; the sheer psychological impact of American predominance will suffice.

While it is hard to disagree with a general preference for RDO and EBO over attrition and slugfests with enemy fielded forces, some cautionary notes have been sounded. One basic tenet of the new approach to war is that a rapid tempo of operations becomes the key to victory. The aim is to operate within the decision cycle of the opponent so the opposing forces will lose coherence and be rapidly dismantled. This is intriguing and plausible, but an unproven theory. There are bound to be situations when speed is irrelevant or counterproductive, particularly on the strategic level.[9]

Information Age Warfare

Service efforts at transformation have occurred on a wide front, but three general areas may be distinguished: networking (particularly C[4]ISR systems) to generate a common operating picture; a shift to an expeditionary orientation, often with major organizational changes or shifts in weapons platforms; and continuing modernization of existing weapons and platforms and a search for more appropriate platforms.

The development of a common operating picture and networking more generally has been most evident in the Navy. Efforts to defend the fleet in an anti-access and area denial situation led to further development of Aegis radar and cooperative engagement capability. The Army sought to digitize its armored vehicles to provide a common operating picture for all units, and the Air Force has shifted from centrally planned and cumbersome air tasking orders to the capability for in-flight targeting of both manned aircraft and cruise missiles. In the 1980s, Marine Corps doctrine adopted ideas that were derived from complexity theory and a concept of command and control that stressed decentralization and mission-type orders.

**Predator UAV during
Enduring Freedom.**

48th Communications Squadron (William Greer)

Each service has shifted to an expeditionary orientation. This is transformation in the sense of dealing with a new strategic environment. When the Air Force realized that it could not count on well-established forward bases, it reorganized into expeditionary air forces. The Navy understood that a deep-water strategy of assuring maritime control against the Soviet Union was redundant and began to focus on the littoral and land attack. Both services increasingly saw their job as kicking in the door through massive strikes during the early stages of a joint operation.

Enemy anti-access and area denial strategies would be dealt with partly by networking sensors, shooters, and deciders throughout the fleet and providing vessels with a new complement of semi-autonomous unmanned vehicles to detect local threats. Moreover, the Air Force would concentrate on the suppression of enemy air defenses and establishing air superiority.

Army efforts focused on digitizing heavy divisions. However, as the expeditionary aspects of the strategic environment became clear, pressure mounted for capabilities to deploy

the Army and Marine Corps were concerned with rapidly inserting highly maneuverable forces

forces more rapidly. The inability of Task Force Hawk to rapidly deploy attack helicopters to Kosovo in 1999 was symbolic of a lethargic service. There was speculation that the Army was verging on strategic irrelevance. Today the goal is deploying anywhere around the world in days rather than months. The Army has been conducting experiments with a medium-weight interim brigade combat team as well as a wheeled combat vehicle known as the Stryker.

The Army and Marine Corps were concerned with rapidly inserting highly maneuverable forces. The Marines developed a concept known as operational maneuver from the sea, eventually defined as expeditionary maneuver warfare. Its tactical application, ship to objective maneuver, is intended to alter amphibious operations by obviating the need to seize and build up beachheads. Instead forces would move from over the horizon directly to targets deep inland.

Platforms

A third general area of transformation, force modernization, may be the most contentious. As the Armed Forces developed new concepts of operations to exploit RMA, the appropriateness of traditional platforms had to be reconsidered.

Strykers moving into attack position.

28ᵗʰ Public Affairs Detachment (Rhonda M. Lawson)

Firing TOW II from Stryker.

28ᵗʰ Public Affairs Detachment (Tim Beninato)

Stryker brigades lack the full survivability and lethality of heavy Army armored divisions. But the argument, based on concepts of network centric warfare, is that speed, striking power, and precision, enabled by a common operating picture, will enable them to hit targets and move before enemy fires can damage them, making up for any shortfall in survivability.

The Navy move to a littoral orientation implied that ship designs and force structure of the Cold War may no longer be optimal. But just what a new fleet might look like was the subject of controversy. Some thought that the carrier had seen its day; it was too vulnerable and had too little sustainable combat power. On the other hand, growth in the strike power of the fleet and increased defensive capability of the Aegis systems argued for the continued utility of these large and flexible platforms. The idea of an arsenal ship designed to launch large numbers of cruise missiles was briefly explored in the mid-1990s. And as the challenge of littoral combat became clear, the Navy experimented with the streetfighter concept, a small and expendable network-centric combatant that could be fielded in large numbers to achieve maritime supremacy in the littorals.

For the Marine Corps to achieve ship to objective maneuver, a triad of new vehicles was needed: the landing craft air cushion, advanced amphibious assault vehicle, and V–22. The concept relied on new means of transportation to bypass defenses and strike targets before an enemy could mass forces to attack. The vulnerability of the triad would be offset by information superiority and self-synchronization. Cancellation of any of these vehicles would put this concept at risk.

For the Air Force, anti-access environments make stealthy aircraft crucial. Hence the F–22 remains the centerpiece of its transformation plans. Current thinking sees unmanned aerial vehicles like Global Hawk primarily as

reconnaissance vehicles. Although developing unmanned combat aerial vehicles, the service remains focused on manned fighters.

Networking current platforms is a great leap forward, but it is problematic whether legacy platforms are most appropriate for the twin challenges of the expeditionary era with anti-access and area denial problems and the information age with a promise of lifting the fog of war. An irony of network centric warfare is that platforms still matter. Critics charge that the services are continuing to modernize forces rather than transforming them to fight in new ways.

From RMA to Transformation

DOD thinking during the Clinton years manifested a growing concern with exploiting RMA and a recognition that it would involve a far-reaching transformation of the military. But there was little coherence or real sense of urgency.

As a candidate, George Bush was committed to skipping a generation of new technology. He cited "a revolution in the technology of war" in a speech at the Citadel in September 1999 and argued that "the best way to keep the peace is to redefine war on our terms." He promised to back transformation with resources. At the same venue two years later, he returned to the same theme: "The first priority is to speed the transformation of our military."

But translating the inspired but vague concepts of *JV2020* into actuality is a central issue. Rhetorical battles over the revolution in military affairs and transformation were not fully resolved, and their meaning in terms of doctrine, training, and acquisition remained unclear. This challenge was addressed in the QDR report, which defined six operational goals:

■ protecting critical bases of operations (homeland, forces abroad, allies, and friends) and defeating chemical, biological, radiological, nuclear, and explosive weapons and their means of delivery

■ assuring information systems during attack and conducting effective information operations

■ projecting and sustaining forces in distant anti-access or area-denial environments and defeating anti-access and area-denial threats

■ denying enemies sanctuary by providing persistent surveillance, tracking, and rapid engagement with high-volume precision strike, through a combination of complimentary air and ground capabilities, against critical mobile and fixed targets at various ranges and in all weather and terrains

■ enhancing the capability and survivability of space systems and supporting infrastructure

■ leveraging information technology and innovative concepts to develop an interoperable, joint C4ISR architecture and capability that includes a tailorable joint operational picture.

The joint community and services have endeavored to make transformation a reality since the mid-1990s. They differ in their perceptions of progress and specific concerns. These six goals offer a common sheet of music. It remains to be seen whether everyone will sing from it.

There is clearly insufficient integration of service perspectives on this subject, and some observers perceive simply a rhetorical repackaging of modernization. Others believe that not all the services are candid enough for transformation to succeed. The need for joint oversight of the kind provided by JFCOM and the Office of Force Transformation is obvious. Whether it can move the services away from their attachment to current platforms and weapon systems remains unknown.

Transformation efforts that are focused on linking everyone via a common operating picture indeed constitute a revolution. But this is only one step on a long road with few signposts. New challenges will arise that counter the American RMA. And as the next revolution takes form, based on robotics, nanotechnology, unmanned vehicles, directed energy weapons, and biotechnology, the Armed Forces will have to rush to move from the current RMA and transformation process. Honest experimentation and nurturing innovators will be the keys to remaining ahead of the game. As always, history will be the judge.   **JFQ**

NOTES

[1] Donald Rumsfeld, "Transforming the Military," *Foreign Affairs*, vol. 81, no. 3 (May/June 2002), p. 29.

[2] MacGregor Knox and Williamson Murray, "Thinking about Revolutions in Warfare" in *The Dynamics of Military Revolution*, edited by Knox and Murray (Cambridge: Cambridge University Press, 2001), p. 7.

[3] Bill Owens with Ed Offley, *Lifting the Fog of War* (New York: Farrar, Straus, Giroux, 2000).

[4] Knox and Murray, *Dynamics*, p. 5.

[5] Ibid., pp. 178–79.

[6] Alvin and Heidi Toffler introduced the idea of an information age in the 1980s and early 1990s. Probably the Army caught on first that warfare was shifting from industrial to information age warfare. Networks rather than hierarchies would be dominant organizational forms. Whether or not this is an information age, there is clearly a payoff in investments in information technology. This suggests that shooters have greater value than sensors, that networks connecting sensors, shooters, and deciders are crucial, and that C4ISR will be central to transformation.

[7] U.S. Joint Forces Command, *Joint Forces Command Glossary*, http://www.jfcom.mil/Newslink/about/glossary.htm.

[8] John Warden, "The Enemy as a System," *Airpower Journal*, vol. 9, no. 1 (Spring 1995), pp. 40–55.

[9] Thomas Hughes, "The Cult of the Quick," *Aerospace Power Journal*, vol. 15, no. 4 (Winter 2001), pp. 34–45; Antulio J. Echevarria II, *Rapid Decisive Operations: An Assumption-Based Critique* (Carlisle Barracks, Pa.: Strategic Studies Institute, November 2001); Steven Metz, *Armed Conflict in the 21st Century: The Information Revolution and Post-Modern Warfare* (Carlisle Barracks, Pa.: Strategic Studies Institute, March 2000).

MILITARY TRANSFORMATION

Unloading Strykers from C–17 .

U.S. Air Force (Jim Varhegyl)

The Army and Land Warfare: Transforming the Legions

By ANDREW F. KREPINEVICH, JR.

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For over a century the Army was largely a territorial force committed to homeland defense. That changed between the Spanish-American War and World War II as it became an expeditionary force and the Nation moved to reconcile isolationist tendencies with its growing great power status. After 1945 the service became primarily a frontier force that supported the strategy of containment, which relied on forward deployment in Europe and Asia. With the end of the Cold War, the Army encountered geopolitical changes coinciding with the rise of regional powers and militant Islam. These events are accompanied by military transformation that emphasizes expeditionary operations while exploiting capabilities emerging from the revolution in military affairs.

The Army is pursuing a three-track approach to military transformation. The first involves sustaining and modernizing a significant portion of the so-called legacy force. Its capabilities are dominated by heavy mechanized units that deterred aggression

Practicing water insertion from CH–47.

while forward deployed in Europe and South Korea and routed the Iraqi army. The second and third tracks are directed at fielding an expeditionary army. The centerpiece of the second is an interim force of Stryker brigade

identifying the need to transform is one thing; effecting military transformation is another

combat teams (SBCTs), rapidly deployable medium-weight units with more punch than light formations such as light infantry and airborne divisions, though not as heavy and logistic-intensive as armored and mechanized infantry divisions. These teams serve as a bridge to the Objective Force, the third track, which is intended to incorporate SBCT mobility, deployability, and sustainability with the lethality and survivability of heavy formations.

For more than a decade there has been a spirited debate over the existence of a fundamental change in the nature of warfare—a revolution in military affairs. That controversy not only reflects the growth and rapid diffusion of military-related technology, but uncertainty over its ultimate impact. Like the dramatic advances in mechaniza-

tion, aviation, and radio which changed the military in the interwar years, the Army must interpret and exploit information and information-related technology as well as precision-strike weapon systems to engage targets over a wide area with greater lethality, precision, discrimination, and speed.

Despite the implicit uncertainty of predicting military competition over the next ten to fifteen years, the Armed Forces appear to have made three assumptions with respect to land warfare.

■ Missile/anti-missile competition will continue to favor the offense, and identifying and defeating critical mobile (ballistic and cruise missile) targets will remain difficult; thus deploying and sustaining forces through major ports and air bases will be increasingly risky.
■ Sanctuaries such as cities, complex terrain, and underground facilities will become more important as enemies strive to avoid open battles that heavily favor U.S. air and ground forces.
■ Highly distributed, networked operations are possible.

Transformation Strategy

Identifying the need to transform is one thing; effecting military transformation is another. Organizations that have successfully transformed benefited from a clear statement of the

disparity between the post-transformation conflict environment and pre-transformation conditions. Current vision statements are regrettably not very compelling. *Joint Vision 2010* and *Joint Vision 2020* have addressed the need to achieve positional advantage over an enemy (dominant maneuver), engage an enemy effectively (precision engagement), support such efforts efficiently and effectively (focused logistics), and defend friendly forces (full-dimensional protection). Although desirable qualities, they offer little guidance on changes in missions and military competition. Indeed, effective maneuver, engagement, logistics, and protection would be qualities desired by any military in any era.

Nonetheless, the Army is arguably the most aggressive service in pursuing transformation. Documents like *Concepts for the Objective Force* envision a number of characteristics common to transformed land warfare:

■ Operations will shift from linear to nonlinear.
■ Formations will operate in more dispersed ways.
■ Operations will be conducted at a higher tempo, leading to greater reliance on speed of mobilization and deployment and in combat operations themselves.
■ Advanced information technologies will enable ground forces to violate the principle of mass to better protect themselves by dispersion, while losing little of their ability to coordinate or mass combat capability.
■ Although close combat will remain a key element in land warfare, advanced information capabilities and munitions will enable ground forces to conduct decisive engagements at far greater ranges.
■ Ground operations will be more dependent on maritime and air forces—in short, land warfare will become even more of a joint operation.
■ The spectrum of land combat will become blurred, with various forms of warfare merging, requiring unprecedented flexibility from land forces.

According to this white paper, "In contrast to the phased, attrition-based, linear operations of the past," transformed operations focus on disrupting battle plans "by exposing the entire enemy force to air/ground attack,

Rangers jumping into the future.

U.S. Air Force (Randy White)

that see an enemy before being seen, strike without being detected, and employ precision fires as an initial knock-out punch. Under these circumstances, the Army would logically seek decisive engagement at extended range.

Transformation plans call for six Stryker brigade combat teams as an interim force, with the first brigade to be fielded in the near term. The Army intends to buy two thousand Strykers to serve as the primary SBCT combat vehicle. The principal program requirements are that the vehicle must be transportable on C–130s, carry a nine-member infantry or engineer squad and crew of two, have communications interoperability among ten interim armored vehicle variants, and mount a 105mm cannon capable of destroying bunkers.

The Stryker comes in two basic types: a mobile gun system and infantry carrier—the latter in eight configurations, including command, reconnaissance, and nuclear, biological, and chemical detection. The first SBCT, however, will have three substitute vehicles because mobile guns, NBC reconnaissance, and fire support systems will not be available in 2005. SBCTs will also be fielded with line-of-sight anti-tank missiles, tactical unmanned aerial vehicles, digital communication, high-mobility artillery rockets, lightweight howitzers, and smart mortar rounds.

At present the Objective Force is only a concept. Although the Stryker is central to SBCTs, the future combat system is the core of that force. Variants of this capability will combine the characteristics of howitzers, main battle tanks, and infantry fighting vehicles, while exceeding their lethality and survivability and weighing approximately 20 tons (compared to the 19-ton Stryker). In addition to the future combat system, the Objective Force will comprise a networked, combined-arms team with manned and unmanned ground systems and unmanned aerial vehicles (UAVs). Once the system proves itself, it will be adopted by the legacy and interim forces, which will be merged in the Objective Force. The Army is pursuing an aggressive—some might say risky—plan to bring the future combat system to the development/demonstration

rather than rolling [its] forces up sequentially." The Army intends to employ superior information and the ability to strike at extended ranges not only for nonlinear operations (fires covering gaps between formations), but to fight at extended ranges. This places demands on forces that are capable of locating an enemy at long ranges, relaying that information quickly, and coordinating strikes at long range.

Traditional land warfare has Army units closing with and destroying enemies, which means winning the close battle by fighting in the trenches. But imagine a blindfolded pugilist who cannot see the opponent. Assume further that the opponent had an advantage in reach and could incapacitate the other boxer with one blow. That situation describes Army formations

Stryker brigade combat team.

TSC, Fort Lewis (Mike Cullum)

phase in FY06, production during FY08, and fielding by FY10.

Like the Stryker, the future combat system must be transportable in C–130-type aircraft. Its design parameters will also compel a fundamental shift by the Army in the conduct of operations, particularly in the armor community. Mandating a 70 percent

the Objective Force will use UAVs and robotics to conduct beyond-line-of-sight reconnaissance and surveillance

reduction in weight from the Abrams tank and 50 percent less internal volume (300–400 cubic feet) to fit aboard C–130s reverses a trend toward bigger and heavier ground combat vehicles. Such a radical weight loss will require basing survivability not on armor plating, but on locating an enemy first at extended ranges and striking with a

precision first-round kill. While revolutionary, this concept is also unproven.

Risk also characterizes the first-generation direct-fire variant of the future combat system, which is expected to defeat main battle tanks and to be as lethal as the Abrams. Rapid deployment timelines for the Objective Force have driven the demand for radical weight reductions in the future combat system relative to the current Abrams tank. At some point, reducing unit weight will inevitably lead to reduced lethality (fewer munitions), survivability (less armor), and so forth. This suggests that everything cannot be a force design priority—there must be tradeoffs.

Aside from the future combat system, the Objective Force will depend heavily on information-intensive systems, including command, control, communications, computers, intelligence, surveillance, and reconnaissance architectures, robotic ground vehicles, and various sensors. The force

will use UAVs and robotics to conduct beyond-line-of-sight reconnaissance and surveillance. But it is unclear that these capabilities will be available within the ambitious timelines the Army has set for fielding Objective Force units. In addition, a key element in the operational concept that underlies the force is the Comanche, a troubled helicopter whose production run has been halved. Yet this aircraft has been called the "quarterback of whatever we see offensively in terms of deep-armed reconnaissance [and] armed escort for ground forces."[1]

Barriers to Transformation

A range of hurdles challenges transformation. Some are discussed below. Others, such as limitations on technological progress, shortfalls in human and material resources, and unwarranted assumptions concerning the ability and willingness of other services to support the transformation of the Army, remain to be considered elsewhere.

AH–64 during live fire exercise, Kosovo.

55th Signal Company (Michelle Labriel)

According to *Concepts for the Objective Force*, the Army goal is deploying "a brigade combat team anywhere in the world in 96 hours after liftoff, a division on the ground in 120 hours, and five divisions in theater in 30 days. This will drive system and capability parameters." While this requirement suggests a major redesign of maneuver formations, there is no compelling basis for this principal force design metric. There is a case for a rapidly deployable expeditionary force, but why a brigade in 96 hours? The Army must make difficult trade-offs in its design parameters (force lethality, mobility, and sustainability) to meet these extremely demanding and seemingly arbitrary deployment timelines. One has only to look at the SBCT design to discover potentially pernicious effects of an overwhelming emphasis on a single-force performance metric. These brigades are bereft of organic logistic support, self-propelled artillery, and organic air assets.

Research confirms that the deployment timelines are overly ambitious. An Army study determined that it would take 12.7 days to move one SBCT to Kosovo from Fort Lewis, using nearby McChord Air Force Base. If facilities at the Pristina airfield were improved to handle all-weather, round-the-clock operations, and if the throughput of air bases en route was

doubled, and if maximum use were made of commercial aircraft, deployment could be achieved in 7.5 days, almost twice the target time of 96 hours. According to an analysis by Boeing, which manufactures C–17 cargo aircraft, deploying one SBCT in 96 hours would require between 103 and 168 C–17s dedicated solely to that mission, and assuming that the aircraft fly at greater than normal mission completion success rates.

Despite attempts to prioritize force design around C–130s, the Army may not have come to grips with the limits imposed on the designs of both SBCTs and the Objective Force. Forces could possibly be deployed to intermediate staging bases on C–17s, then inserted into a theater by intra-theater lift such as C–130s. However, there is the issue of transloading SBCT/Objective Force equipment to C–130s, which inflicts further delay. Moreover, the 2,800-mile range of C–130s implies a maximum ingress and egress route from intermediate staging bases of 1,400 miles each. But it appears possible—indeed likely— that in the not distant future, enemies could deploy ballistic missiles with ranges exceeding 1,400 miles, placing staging bases at risk.

There also have been problems with the weight of the Stryker with respect to C–130 transportability. While

most variants have been granted waivers for the aircraft, the Stryker mobile gun system still presents problems. Of course, its borderline weight will also significantly reduce C–130 operational range, further complicating deployment options. This situation may be worse for the future combat system, which is intended to be nearly as light as the Stryker. Based on these factors, Military Traffic Management Command has concluded that "if maximum transportation flexibility [is] to be of paramount importance, the maximum C–130 air transport weight of future vehicles should be in the 29,000–32,000 pound [14.5–16 ton] range. These weights ideally would include the crew, 3/4-tank of fuel, and full ammunition, armor, and equipment."[2] Both the Stryker and future combat system significantly exceed these limits.

Urban Warfare

An increasingly likely contingency for the Army is urban operations. Not only will enemy forces have more incentive to fight in cities to avoid open battle with a stronger military, but there will be more urban terrain in which to seek sanctuary. Two pillars of American dominance—air superiority and systems-derived intelligence—are vastly degraded in urban terrain. The value of superiority in signals intelligence is greatly reduced, as enemies can communicate with nontraditional means such as runners. Air strikes and other forms of bombardment, even precision munitions, have greater limitations in an urban environment, where enemies can be located among civilians or near targets that are difficult to engage, such as hospitals and religious sites. Tactical human intelligence is key in providing extremely specialized information needed to operate on the urban battlefield—from the direction doors open and the utility portals in the sewer systems to the disposition of enemy regular and irregular forces. But human intelligence is not a U.S. strength.

The Army is attempting to structure and train SBCTs with urban warfare in mind, with half of collective

High mobility artillery rocket system.

55th Signal Company (Russell J. Good)

training explicitly dealing with such operations. The base unit for both SBCT and the Objective Force is combined arms mechanized/motorized infantry—the traditional type of infantry-heavy team employed in urban areas for house-to-house fighting. But serious questions remain concerning

military transformation places great value on maintaining hedges against uncertain outcomes

the suitability of the structure of SBCT and the successor Objective Force for urban warfare. Both forces are based on the vision of "see first, understand first, act first, and finish decisively." In urban operations, however, it seems likely the local inhabitants or occupying enemy forces will have a better picture of the environment than Army forces which arrive after the fact.

A Brief Tenure

Dramatic change in large military organizations usually spans a decade or more. However, the institutional practices of the Armed Forces typically rotate leaders out of assignments every three or four years. This cycle may suffice for officers whose responsibilities

are near term, such as combatant commanders with immediate warfighting missions in their areas of operation. It is less desirable where they are tasked with effecting military transformation.

Experience indicates that organizations that have successfully transformed have usually had a few senior leaders—who understood the new environment and bringing about change in complex organizations—serve for double or triple the length of time of typical general officers. In contrast, General Erik Shinseki who is Chief of Staff, U.S. Army, laid out his vision for transformation in October 1999, aware that his tenure would probably be four years.

However, military transformation is a long-term process that places great value on maintaining hedges against uncertain geopolitical and military-technical outcomes. These hedges must balance concern that, while options remain open, it is easier for an organization to retain existing ways of doing business. Enemies of change believe they can outlast the tenure of the leaders who champion transformation. By locking in many Objective Force characteristics, Shinseki sacrificed keeping options alive downstream in favor of committing the Army to a certain path, making it more difficult to

reverse course. In short, he appears reluctant to entrust his vision for transformation to his successors.

Modernization Strategy

Military revolutions are usually characterized by an increased risk of strategic surprise, like submarine warfare in World War I. Yet even systems placed on a fast track often take ten years or more to be fielded.

Considerable time is needed to reach the best decisions on new systems and force structure. Given these considerations, Army leaders must adopt a different modernization strategy to achieve the goal of dominating military operations over the conflict spectrum in the long term. The service must emphasize wildcatting—experimenting with a limited but operationally significant number of various systems, as well as operational concepts and force structures. Successful modernization is generally not restricted to a single option. Premature selection of key systems may produce a fortunate outcome if the Army guesses right. However, committing to a single-point solution in an uncertain world may prove devastating should the guess turn out to be wrong.

It is also important to avoid false starts and dead ends. The former are systems deployed before the technology surrounding them matures. The 2,000 Strykers could represent an expensive false start because the Army believes that a more capable system—the future combat system—can be fielded to eclipse it. Dead ends are capabilities that appear promising, even revolutionary, but fail to meet expectations. The challenge is not to escape acquiring dead-end systems too early; it is to not buy them at all. For example, if the Pentagon does not make breakthroughs in missile defense or operational concepts that govern their employment within the planning horizon considered here, fielding ballistic missile defense systems such as the theater high-altitude air defense system could represent dead-end investments for the Army.

Several documents, concepts, and systems guide Army transformation efforts. *The Army Vision: Soldiers on Point for the Nation—Persuasive in Peace, Invincible in War* (October 1999) provides the foundation. According to this statement, the service will realize "strategic dominance across the entire spectrum of operations" with forces that are "responsive, deployable, agile, versatile, lethal, survivable, and sustainable." Rapid deployment goals will drive system and capability parameters. More specifically, the Army "will develop the capability to put combat force anywhere in the world in 96 hours after liftoff—in brigade combat teams for both stability and support operations and for warfighting" and be able to generate "a warfighting division on the ground in 120 hours and five divisions in 30 days." Airlift, particularly C–17s and C–130s, are the only means currently capable of supporting the goals for deployment into theater; in the future, other modes of rapid deployment such as the high-speed vessel or lighter-than-air transports may be developed.

To achieve this vision, the Army is proceeding with the Legacy Force, Interim Force, and Objective Force. The Legacy Force guarantees near-term warfighting readiness and is comprised of current units and equipment. The Interim Force is designed to fill the near-term capabilities gap as the Army transitions from the Legacy Force to the Objective Force. It seeks to combine the best characteristics of current forces—heavy, light, and Special Operations Forces—and leverage state-of-the-art technologies. In November 2000, a family of 19 ton-class wheeled vehicles built by General Motors and General Dynamics Land Systems was selected as the armored vehicle for the Interim Force. The vehicle is named the Stryker and the unit of action designated the Stryker brigade combat team (SBCT). The Army has allocated over $6.4 billion through fiscal year 2007 to field six SBCTs; the first is expected to reach initial operating capability in 2003.

The *Army Transformation Roadmap* describes the *Future Combat System* (FCS), which is the centerpiece of the Objective Force. FCS is "a joint and combined arms interoperable, 20-ton-class, rapidly deployable, networked system-of-systems with manned and unmanned aerial and ground platforms, direct and indirect fires, air defense, intelligence, reconnaissance, surveillance, and embedded battle command on the move." In March 2002, a Boeing-Science Applications International Corporation team was named lead systems integrator for FCS; the Army plans to complete the development and demonstration phase of FCS acquisition by 2006 and field the first Objective Force unit in 2008.

For details, see: www.army.mil/vision/; www.objectiveforce.army.mil; and www.army.mil/vision/Transformation_Roadmap.pdf. **JFQ**

level. Yet it is often the warfighting concept on the operational level that can inform tactics. A second concern is the ability of the Army to determine the viability of its operational concept for Objective Force, in which information architectures play a major role.

Finally, the Army lacks adequate facilities for urban warfare training. Despite some improvements, few have live-fire capability. Moreover, most training is done on the small-unit level, and little is performed as a combined-arms exercise, let alone with other services or nations. The Army lacks an organic capability to hone aerial integration under realistic conditions. Operations in Mogadishu, Jenin, and Grozny have shown, and Iraq may prove, that the Armed Forces need a joint urban warfare training center.

Various issues deserve further attention. A point of departure would be assessing how to modify the operational concept and structure of the Objective Force to reduce risks, while enabling the Army to meet the threat that first stimulated transformation. Whenever risks cannot be reduced, opportunities to develop strong hedges can be explored. Despite some formidable problems, there is cause for optimism. The Army has identified the requirement for transformation and advanced compelling reasons to support it. It initiated the process before potential threats became severe enough to jeopardize the ability to conduct land warfare at acceptable costs. Put another way, the Army has time to adjust its strategy for military transformation to enhance prospects for success and mitigate the consequences of any shortcomings. **JFQ**

NOTES

[1] Ann Roosevelt, "Comanche Helicopter Still Top Army Program Despite Problems," *Defense Week* (March 4, 2002), p. 6.

[2] Joseph F. Cassidy, *C–130 Transportability of Army Vehicles* (Newport News, Va.: Military Traffic Management Command, Transportation Engineering Agency, 2001), p. 13.

Field exercises are also beneficial in times of high uncertainty and rapid change. They provide opportunities—as close to actual combat as possible—to assess the merits of warfighting concepts and capabilities. During the Cold War, the military invested in high-fidelity facilities that enhanced field training. For example, the National Training Center at Fort Irwin prepared brigade-size units for combined arms mechanized warfare against a Soviet threat. Yet comparable facilities to support joint exercises focused on anti-access/area-denial threats, as raised in the Quadrennial Defense Review, do not exist. A joint national training center is needed for transformation exercises.

Several concerns arise from the absence of facilities to support exercises that prepare joint forces for challenges on the operational level. One is promoting training on the tactical

Corporate Disasters
Some Lessons for Transformation

By PAUL BRACKEN

Stepping into Chapter 11.

Getty (Erik S. Lesser)

Applying the dynamic changes in corporate America is a feature of military transformation. Networked organizations, self-organizing systems, positive returns to scale, organizational agility, and sensory awareness are mentioned as characteristics of a revolution in military affairs. Each

has a parallel in business, strengthening its attractiveness for the Pentagon. After all, companies did change in the 1990s, becoming less hierarchical and more networked, incorporating information technologies into daily operations, and using resources much more efficiently than the bureaucratic structures that went before.

Yet little consideration has been given to what is now obvious, that many companies which were once models of revolutionary change have come to grief: Enron, WorldCom, Vivendi, AOL Time Warner, Qwest, Global Crossing, Sunbeam, British Telecom, Marconi, Tyco, and AT&T. The list goes on and raises basic questions because all these firms underwent radical transformation and were either total disasters (Enron) or badly damaged (AT&T).

As the dust clears from transformation calamities in the private sector, the implications must be considered by defense planners. Yet corporate disasters are barely acknowledged in the debate. The Armed Forces seem stuck in the late 1990s when technological euphoria was as high as NASDAQ and the hype of the information economy and digital jargon on self-organizing systems could trump every argument.

In particular, most military transformation strategies still pose the central problem of getting laggards to realize that breaking out of longstanding behaviors is vital. Too many transformation briefings have the polemical tone of hitting people over the head with a PowerPoint two by four. Some

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enthusiasts claim that the challenge is making the services give up their bureaucratic ways to embrace the new organization. But this attitude fails to appreciate that the business landscape is littered with the carcasses of companies that were transformed. Who would argue today that the Pentagon should conduct business like Enron, to take the most extreme example of a networked, asset-light organization?

The problem is no longer getting people to embrace the need for change, but rather a more complicated one of managing change. Precision fires, networking, stealthy platforms, and space systems are widely appreciated. No serious defense analyst would question their contribution. In the past it made sense to point out their

transformation with too many links that must be meshed in time and budget is a risky proposition

benefits and call for changes in direction. But the issue today is understanding how to manage transformation—making it happen.

If the Pentagon is going to borrow from business experience it must examine both sides, in particular how many corporate transformations once held up as examples have since proven to be catastrophes. Ignoring the disasters is as big a mistake as concluding that military transformation is not needed at all or that large organizations are impossible to change.

Two-Edged Sword

The biggest lesson of corporate disasters is that large organizations are capable of explosive innovation. This places a colossal burden on leaders to think through exactly what they are doing. Conventional wisdom supports the conclusion of Max Weber: large organizations are conservative. Entrenched interests and bureaucratic politics combine to make fundamental change nearly impossible. If major change occurs at all, it will likely take decades to unfold.

Contrary to this view, corporate America in the 1990s underwent a massive transformation. Businesses became more agile, networked, and innovative. New organizational forms such as the horizontal corporation and the virtual corporation sprouted up. Old models of corporate strategy based on slow motion change defined in terms of deterrence to entry and market power gave way to a focus on hyper-competition and permanent instability as enduring aspects of doing business.

But the capacity for radical change became a two-edged sword. American corporate leaders of the 1990s saw their job as getting their firms to accept change and convincing stockholders that the old ways would not work any longer. They succeeded to an extraordinary degree and got what they wanted. But in too many instances the change went in the wrong direction when measured by the yardstick of competitive success.

AT&T, for example, was essentially a long-distance telephone company in 1997. It then transformed itself into the largest national operator of cable television systems and at the same time pushed to retool these networks to make them digital and integrate telephony and broadband video. The strategic vision was to bundle services—telephone, television, and the Internet—to become the biggest supplier of information to companies and households. This required taking on a mountain of debt to buy cable systems and rework technology from analog to digital. But cash flow could not support the outlay because its core business, long distance, eroded faster than anticipated and new business, broadband to homes, did not take off fast enough to replace it.

In the AT&T case the overall strategic vision made perfect sense, but the timing did not. Synchronizing so many parts of the strategy was a basic assumption of the plan. If any piece of the transformation did not arrive on time or within budget the entire strategy failed, threatening to take the whole enterprise with it. The lesson is that simply having a strategic vision of change is not enough. Transformation with too many links that must be meshed in time and budget is a risky proposition and cannot be concealed forever behind the rhetoric of a digital revolution. Such a revolution did occur, but unfortunately for AT&T there were so many timing problems that a firm that was once a paragon of the blue chip corporation is a shell of its former self. A management plan—and not just a vision—is needed for real transformation to succeed.

Self Disorganization

Another lesson is that the management challenges of transformation are new and complex. Often no one really understands how to deal with these challenges, which get little attention until it is too late. For example, using markets to trade commodity products makes good sense. Markets are efficient and balance supply and demand. And there is no reason that markets cannot be used to trade everything from oil and gas to broadband communications capacity.

But operating in several markets at once requires knowing comprehensive risks which arise from correlation across various markets that can cause losses in one to compound those in another. Likewise, systemic risks from financial exposure in debt markets can erode trust in the viability of a company. Loss of confidence would affect the ability of a trading company to operate in all of its markets systemically. Understanding such interactive risks is far different from understanding the particular details of one market only. No one is entirely certain how to do this.

A facile presumption is often made that people will learn to adjust to the new environment, in particular that if information is put out, a self-organizing behavior will take place as the different divisions of a firm coordinate, much as bees preserve the balance in a colony. Comparisons to beehives are made to suggest how a military force can best be organized. Self-organizing systems have been key in many discussions of the new economy, and they arise in debates on information technologies as well as command and control systems.

Self organization, while it occasionally takes place, is hardly automatic. What often occurs is self disorganization as each division suboptimizes to manage the complexities which confront it. Enron, for example,

Closed for business
and $6 billion in debt.

Reuters (Brent Smith)

was once a natural gas company that transformed itself within five years into an essentially unregulated investment bank that made money from trading futures contracts on oil, gas, electricity, broadband, and other commodities. It raised money to build these trading systems by selling gas fields in Texas and power plants in South America. Moreover, it borrowed heavily to leverage its trading positions. Enron did not have to keep a minimum capital base as did its real competitors, the Wall Street investment banks. Because it was not regulated like a bank, it could transform hard assets such as gas pipe lines into soft ones—bits and trading positions. Enron carried this practice farther than any other company.

That Enron pursued an asset-light strategy, whereby information was substituted for hard holdings, makes its

lessons of special interest. Better intelligence and command and control, it is argued, can substitute for troops to produce more with less. But this example points to the need to understand how to execute this strategy on the operational and not merely conceptual level. It also reveals the risk of taking it too far. Invoking the economic notion of a self-organizing system, Enron had a strategic vision which, absent a management that understood the risks associated with it, created gigantic vulnerabilities which went unrecognized until it was too late.

Enron officials got rid of their assets. That was the easy part. But they had no experience or understanding as far as actually running such a complex enterprise. Their publicly-declared strategy was that they knew how to manage risk—shape it and transfer it to other markets. It is clear in retrospect that

they had no such knowledge. Enron ran up huge positions in different markets and was compelled to hedge them with hidden borrowing, which eventually led to financial collapse.

Clausewitz would have understood what happened at Enron. It exemplified his most basic principle: the essence of war is uncertainty. The purpose of assets—whether capital in business or force structure in war—is that the operating environment is highly volatile. Leverage—substituting information for hard assets—makes sense, but only when you understand what you are doing. Beyond that point the risks pile up quickly. Failure to learn this lesson invites disaster. That is not an argument for unneeded weapons or oversized force structure, but it does indicate that far more attention must be

given to understanding the tradeoff and operating with such a substitution.

Null Synergies

Many disasters arose from an acquisition binge that had good strategic logic. Globalization meant companies needed to be big and offer a full range of services. WorldCom, Vivendi Universal, Tyco, AOL Time Warner, and others seemed to demonstrate that building a business around a network would create huge synergies that would eventually destroy the competition.

It was argued that synergies between integrated companies could be exploited to transform competitors. AOL bought Time Warner in 1998 for $65 billion under this rationale. Time Warner media resources could be rechanneled by expanding AOL Internet business. In effect, the Internet was

only when synergies are developed with utmost specificity have major advantages accrued

perceived as an integrating network of movies, books, magazines, and other entertainment that could be repackaged and resold over the net. AOL Time Warner was regarded as a model of the company of the future, whose synergies would drive unintegrated competition out of business.

Synergies built around the new technology of the net were behind mergers by other firms with similarly disappointing results. Vivendi Universal and Bertelsmann copied the AOL Time Warner strategy, believing that with networked systems there would be transformation in the way people availed themselves of information, leading to a convergence that necessitated far-reaching changes in the way companies delivered news and entertainment.

But these synergies were easier to identify on paper than to achieve. The strategy proved disastrous for these companies. Ironically, the firm that did not bet the farm on convergence and synergy, Viacom International, is now the most valuable media corporation in the world. In effect, its competitors self destructed by betting on synergies that never happened.

The problem is broader than AOL Time Warner or the failed efforts of the media industry. Some two-thirds of strategic rollups—acquisitions undertaken to transform an acquired company for synergy payoffs—are never realized. There is now even a name for this phenomenon in the management consulting trade: null synergies.

Broad statements on the benefits of synergy are suspect. Only when synergy is developed with utmost specificity in well described areas have major advantages accrued in business.

Positive Returns?

WorldCom, once the biggest provider of Internet traffic in the Nation, declared bankruptcy in July 2002. It grew enormously with a logic of positive returns, another new economy concept. Under this logic, adding a new unit to the network adds to the power of the whole. It contrasts with negative returns, which are often used to describe the dysfunctional aspects of a bureaucracy. With negative returns, as an organization grows, harmful effects arise from further growth because inertia and internal resistance grow more quickly than the benefits of size.

Both positive and negative returns are important concepts. But hard business experience illustrates that network technology alone does not guarantee a transformation to positive returns. WorldCom reveals the downsides that go with a strategy of positive returns, which is integral to the intellectual debate over military transformation but rarely rigorously analyzed. Too often it is used as an empty catch phrase without adequately describing either how it will work or its risks.

By swiftly expanding its digital network through a string of 65 acquisitions, including the $37 billion purchase of MCI in 1998, WorldCom aimed to lock in the benefits of size. Locking in is another concept from the new digital economy. The bigger WorldCom got the more powerful it would become. Beyond a certain size,

the argument went, new emergent properties would appear, such as an ability to rapidly develop entirely new kinds of business that smaller competitors could not copy. WorldCom competitors would be locked out.

WorldCom developed a corporate culture that matched this strategy. Corporate culture in technology intensive companies—attitudes of company executives—has gotten too little attention. The culture supplies meaning that guides the actions of workers. And people, not technology, make business and the military work. WorldCom executives were almost belligerent in pushing network expansion. Strategy and culture were aligned.

Many executives knew in early 2000, two years before bankruptcy, that profit margins were plunging, network capacity was increasing faster than demand, and cutthroat competition was accelerating. Most businesses in this position would hit the brakes, halting expansion and cutting expenditures for survival. Why did WorldCom continue to make huge investments in expanding its capacity, incurring costs that had to be concealed through accounting gimmicks? The lock-in strategy required it.

Lock-in strategies magnify danger by encouraging unlimited financial backing in the belief that competitors will eventually be locked out. The WorldCom debacle shows how risky this view can be. Good money is thrown after bad for network systems that are not (yet) delivering expected results. The logic is that a transforming breakthrough will occur with a further commitment.

As DOD builds large networks that tie diverse systems together, this risk has to be carefully avoided. Risk controls and management attention given to such projects must be greater even than for large weapon systems like ships and aircraft. Yet for historical reasons this is not the priority today. If there is an area where smart oversight is needed, this is it.

Watch the Debt

Many corporate disasters arose from the simple fact that transformation is not free. It has to be financed. The companies that got in the most

Down and out—21,000 workers on the street.

1400 Smith Street

Zuma Press (James Nielson)

Although there is no debt per se in the defense establishment, examples of transformational weapons and programs that are mortgaging the future exist. The understandable tendency of the moment is to focus on the benefits of the transformed organization and not on the mortgage. But recent corporate disasters show that this leads to trouble.

The mortgage for military transformation must be carefully watched, not just fiscally. The lesson of corporate disasters is that all kinds of dysfunctional behavior follows when finances get out of balance. Public and congressional trust can evaporate, creating such a hostile climate that even well-thought-out recovery programs do not get a fair hearing. Leadership attention is directed at fighting the financial crisis rather than more basic matters. Day to day operations are starved of resources. The lesson is that there is more to financing transformation than adding up the costs of programs and comparing the sum to five-year budget estimates. While cost is important, trust and confidence of key constituencies is more important.

Corporate disasters can inform military transformation. They teach lessons that civilian and military leaders, program managers, and defense analysts can use as a checklist. At the same time, some may seize on corporate disasters to argue that transformation is not needed or is too difficult. Neither view is correct. Without a thorough appreciation of the challenges of transformation—and unless all available experience is examined—the Armed Forces risk reliving lessons that corporate America has learned the hard way in recent years. **JFQ**

trouble were those that went most deeply into debt to finance transformation. Telecommunications giants such as AT&T, Qwest, Global Crossing, and WorldCom stand out. By nature, telecommunications is capital intensive because fiber optic networks have to be built out, as happened with WorldCom.

When demand failed to grow companies were thrown into crisis. What happens next in capital intensive companies is that money issues, not technology development, become the strategy driver. Original technical concepts—fiber optics, wireless, broadband—were excellent. That was where corporate strengths were found, not in financial juggling.

One feature in many cases was the implausibility of corporate attempts to hide problems. Fabricating deals and declaring them to be revenue, borrowing using disguised subsidiaries in the Cayman Islands, and booking operating costs as capital expenditures were bound to be exposed. Corporations that used tricks were not particularly good at it, nor did they appreciate the traumatic impact that loss of confidence would have when the first inklings of what they were up to became public. This is one reason why most collapses occurred so quickly.

Learning from
TRANSFORMING THE COMMERCIAL SECTOR

By JANICE M. GRAHAM

Dell Computer Corporation

Computer assembly line in Austin, Texas.

T he Secretary of Defense created the Office of Force Transformation in November 2001 to prepare the Armed Forces for the uncertainties of the 21st century. This institutional step followed other indications that significant change was afoot. In the past year the President, Vice President, and Secretary have cited the requirement to shift from a slow, heavy force to smaller, more lethal, more maneuverable capabilities that can better confront terrorism and other threats.

Vice Admiral Arthur Cebrowski, USN (Ret.), has been assigned to direct this new office. A former president of the Naval War College, he is known as a revolutionary thinker who is likely to go beyond mere tinkering on the margins. As Cebrowski organizes a staff, delineates a charter, and builds a constituency, the enormity of his job cannot be overstated. Not the least of the tasks ahead will be convincing large segments of the defense establishment that military transformation is critical to continued U.S. dominance.

Critics of transformation claim that the military performed well in Afghanistan and adapted to asymmetric warfare. But supporters of military transformation point out that the Central Intelligence Agency, not the Armed Forces, was first to use unmanned combat aerial vehicles and other innovations. Exactly what constitutes transformation and how it can meet the challenges of the future will define the mission of the Office of Force Transformation.

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What Is It?

Transformation was advanced by the U.S. Commission on National Security/21st Century, which reported that geopolitical realities in the wake of the Cold War and technological, social, and intellectual developments in the information revolution have not been met by institutional change. The commission also found that no strategic planning process exists to specify goals and priorities. Its report recommended overhauling DOD organizations and procedures. A study group known as the McCarthy Panel was convened in March 2001 by the Secretary. Leveraging work by the commission, it acknowledged that requirements changed with the demise of the Soviet Union, including an ability to dominate operations from strategic nuclear deterrence to humanitarian relief, with fewer casualties and minimum unintended damage. The panel reported that although the Armed Forces are the most capable in the world, transformation should build on the existing military to create more responsive conventional capabilities. It defined transformation as a process of

organizational transformation reveals a common thread—the challenge is changing attitudes

change that develops new operational concepts, determines which ones work, and implements them.[1] Specifically, it connotes change in organizing, training, and equipping forces; doctrine, tactics, techniques, and procedures; military leadership; and interacting to produce effects in battles and campaigns.

Cebrowski has advanced the notion that transformation is not a destination, but a process. It is not necessarily about new technologies, weapons, or platforms; instead it might utilize existing systems in ways that their designers did not envision. More enlightening is the inclination to view transformation through the lens of corporate strategy, risk management, and organizational rules. Lessons from transformations of large organizations suggest that approach is correct.

Organizational transformation reveals a common thread—the challenge is changing attitudes. The greatest task will be surmounting the complacency, inertia, and inward focus of the defense establishment. Rigid hierarchies, redundant staffs, and information flows that center decisions on the highest levels pose the most difficult challenges. Achievements in military transformation will depend on convincing DOD that it is operating in the information age—not the industrial age—and thus can no longer function according to obsolete management and organizational practices.

Achieving Success

Industries that succeed in the long term usually concede that what made them successful in the past will not guarantee future progress. Experience offers a measure to gauge discontinuities, understand the present, and place it in context; but it reveals little about what to expect.

The interplay of systems that characterizes the world is becoming increasingly complex, so one must learn to live with chaos and uncertainty.

Chaos does not mean a random chance world. In a mathematical context, chaotic systems are defined as deterministic phenomena characterized by specific properties that produce patterned yet unpredictable outcomes. The significance of chaos theory in understanding the strategic environment is that it shifts the focus and methods of analysis from disaggregating complex phenomena and examining simple parts to seeing systems as holistic and dynamic. In a much quoted remark, Edward Lorenz used the metaphor of a butterfly flapping its wings in Brazil and eventually causing a tornado in Texas.[2] Thus a small change or disturbance often is magnified over time, making it impossible to accurately assess events or predict outcomes. Sensitivity to initial conditions—given seemingly insignificant shifts in the course of events—is the hallmark of chaos.

Lessons from attempts at transformation support the theory that organizations that can adapt to constant and often unforeseen change and system perturbations tend to be those that consistently succeed. Those that are slow to comprehend and adjust to the fluidity of the strategic environment lose their competitive advantage and die. In fact, because information and technologies are rapidly advanced and assimilated, the so-called first-mover advantage is largely short-lived. This issue is managed by industry in part by creating budgetary slack—or fencing a percentage of resources—to quickly pursue promising ideas.

The transition from the industrial age to the post-industrial or information age is underway. Exactly how far the developed world has progressed along the continuum is debatable; but there is general agreement among management experts that large-scale institutional transformation is indeed ongoing. Several emerging phenomena characterize this trend.

Intellectual Capital

In the industrial age the means of production—sources of wealth—were raw materials, technologies, land, and other capital. Today the assets of primary importance and the new source of wealth is intellectual capital. This illuminates an underlying shift in assumptions: critical assets of an organization are not hardware or software but brainpower. Thus in the age of information, employees own the means of production, and obtaining and keeping the best skills may be the most critical factor in determining the viability of an organization.

The Pentagon can learn much from those organizations in the private sector that base their operating assumptions on intellectual capital. Their structures and practices differ from traditional approaches which some see as relatively interchangeable. Individuals are unique strategic assets to be fostered to maximize creative, analytical, and problem-solving skills. Moreover, as workers become more educated and mobile, they operate with greater autonomy and responsibility.

Federation Model

Today innovating commercial organizations operate in a dynamic and collaborative fashion. Their organizing

Reconnoitering in Afghanistan.

Task Force K-Bar

architecture resembles a federation—many semiautonomous units or teams joined by a common purpose. Power and decisionmaking are balanced between the central authority and individuals in units who are both responsible for the work and accountable for the results. They are provided a budget which they manage themselves. Operating principles tend to be few, simple, and value-centered and are better de-

network arrangements reduce costs by sharing resources that are not needed on a continuous basis

scribed as practices to define operating boundaries and enable adaptability. Decisions on when, where, and how to conduct work are made by unit members, not by managers removed from the work environment.

Semiautonomous, self-governing, and self-budgeting teams may not be easily depicted on organization charts—at least not for any length of time. They may begin with a mission or charter assigned to one individual, who then identifies the best talent inside and outside the organization to accomplish the job. Units are not only

self-governing, but they continually recombine and reorient themselves into new configurations as their role evolves. Members are added and subtracted based on skill sets, and charters may be handed off to different units with different skills in time.

Units build alliances, partnerships, and information networks that are internal and external to the larger organization. Such arrangements transfer knowledge, leverage experience, and extend boundaries of units and eventually parent entities. This aspect enables both units and organizations to operate with the power and knowledge base of a larger corporation, but without the bureaucratic inertia. Pooling resources, partnering, and networking also provide means to spread and manage the risk inherent in new or expanded ventures.

Network arrangements reduce costs by sharing resources that are not needed on a continuous basis. Because cost savings and time to market are critical determinants of commercial

(and government) viability, eliminating outdated or redundant parts of the organization should be routine. This type of organization is supported by procurement practices as adaptable as the overall organization.

The leaders of innovating organizations tend to support the self-organizing, self-managing concepts of a federation through their vision, encouragement, and guidance rather than direct forms of control. This type of leadership can be characterized as coaching. The analogy to a sports team is useful; developing the specialized skill of individual players is paramount to success. The leader establishes the vision and guides progress. His success depends on the ability of team members to maximize their potential and cooperate with others. Professionals perform in teams and trust is key to organizational success.

The hospital also provides an instructive analogy on the individual and organizational level. It works diligently to hire the best specialists it can find, then requires that they continually upgrade their skills. A specialist can work at several hospitals simultaneously, for institutions merely buy services—and only when needed. Moreover, at some point in their careers, specialists do not have to give up practicing a specialty to manage other specialists. That would be wasteful and the loss of a core resource. Instead hospitals hire management specialists to perform this task. This model of advancement within an organization is lateral rather than vertical and based on individual ability to master increasingly complex problems.

Lateral models—coupled with developing creative, imaginative, and continuously educated workers—enable innovative organizations to recognize that neither their knowledge base nor strategic opportunities need be located only in top management. That level may have the least diversity, tolerance for change, and ability to see opportunities and set new directions. Thus the individuals with the greatest vision may not be involved in defining the future of an organization.

The cumulative effect of organizational practices described above is a working environment and culture that rewards imaginative ideas, entrepreneurial performance, and collaborative efforts. These characteristics underpin agile organizations that are adaptable and proactive in defining the strategic environment. Moreover, they are prerequisites to developing innovative technologies and programs and thus sustaining strategic advantage.

Defense Management

These organizational innovations are relevant to defense management, but they require the will to operate effectively in culturally different ways. The development of operational concepts, research and development initiatives, models and practices, and approaches to experimentation and prototyping presents a situation in which individuals on all levels of an organization should make a greater contribution to decisions. Moreover, rigid and centralized decisionmaking may no longer be the model for conducting military operations. A better model might be a centrally-coordinated strategy, statement of mission and objectives, concept of operations, and rules of engagement with a decentralized command structure using semiautonomous, highly maneuverable, adaptive teams. U.S. Special Operations Command already operates under these management practices and could serve as a prototype.

Special Operations Forces are organized into small, agile, autonomous teams which remain attuned and adaptive to changes in the strategic environment. Units operate under simple rules and guiding principles. Inefficient procurement processes are bypassed to meet unit needs. Complete accountability and trust form the basis of their ethos. While unified commands provide centralized planning, mission statement, and guidance, teams accomplish missions in a decentralized manner with heavy reliance on networks, ingenuity, and capability. Not coincidentally, these forces enjoy the highest retention rates in the military.

DOD sorely needs more efficient and effective organizational and operational concepts and a new strategic direction that is more adept at operating in the dynamic realm of information and networks. With rare exceptions, senior leaders who have functioned under the current system and come to believe that challenging that system is harmful to promotion are the least likely to initiate change. Individuals in the middle and lower levels of the organization possess more knowledge, resourcefulness, and ingenuity and could contribute significantly to creating new core competencies to transform the military for the 21st century.

The Armed Forces would benefit by eliminating the up or out policy of career advancement and adopting lateral development to allow individuals

military experimentation is mostly proof of concepts, demonstrations, and mechanisms that validate desired endstates

with valuable skills but less desire to manage others to remain on active duty and enhance their expertise. Countless specialists are lost each year because their opportunities for advancement are less than 5 percent. Lateral promotion similar to practices in industry would enable the retention of trained and educated military professionals. It is a waste of resources to operate under the assumption that everyone must become a senior enlisted manager or a commander or face discharge or retirement.

Decentralization requires a culture of pervasive trust that frees leaders to delegate authority to—instead of power over—subordinates, enabling decisions that implement the shared vision of an organization. Empowering competent subordinates can admittedly lead to mistakes and failures. Though leaders have tried to eradicate the notion of a one-mistake military, there are few signs that it has been eliminated. Of particular note for transformation is the fact that military experimentation is mostly proof of concepts, technology demonstrations, or other mechanisms that validate desired endstates. Generally the process

of discovery and experimental play is not approved for insertion into joint or service experiments and exercises, and the play of hostile forces is designed to enable successful outcomes. For military transformation to be effective in the long term, individuals must believe it is possible to be less than successful in generating concepts and experimentation without jeopardizing their careers. Advancement, rewards, and incentives must reflect the notion that with failure comes learning and better ideas.

As innovative entities in the private sector have adopted new organizing principles, the result has been more efficient, effective operations, reduced or eliminated administrative functions, and fewer senior- and mid-level managerial positions. Alternatively, attempts at downsizing and reorganizing the defense establishment over the past decade have led to an increased number of senior positions and staff members. Adopting the practices of innovating organizations can bring about efficiencies and a reduction in general officers and senior-level officials. This transformation could lead in turn to greater military effectiveness as additional layers and opportunities for stalemate are shed.

Institutional Transformation

Dynamic systems make it impossible to predict the strategic environment with any degree of certainty beyond the next three or so years. This operating assumption leads defense planners to acknowledge that the intricate procurement process—wherein developing new weapons can be measured in decades—is an inaccurate and risk-laden tool for planning the future structure of the Armed Forces. This core management issue must be addressed early on, as it is one of the most salient obstacles to military transformation.

Longtime success in the private sector can be credited to keeping abreast of the competition and redefining markets to take advantage of

MILITARY TRANSFORMATION

Secretary Rumsfeld
pointing the way.

U.S. Army Visual Information Center (Linda Tsang)

stocking the military toolbox are necessary but insufficient ways of transforming the Armed Forces. Revolutionary concepts and technological innovations are derived only from a culture that enhances intellectual capital, rewards creative thinking, and reflects dynamic change.

By studying complex adaptive systems, answers to future strategic dilemmas will be found with more heuristic, nonlinear, improvisational, and intuitive methods. This equation must include intangibles. Identifying individuals to function in this setting and share in developing operational plans and strategies is central to sustaining strategic advantage. Complexity teaches that outcomes often are not predictable or preordained. Individuals acting on any level can cause change.

Even though many organizations are struggling to find a purpose, the Armed Forces do not share that fate. Their sense of purpose has not been so vibrant or popular in decades. Like other large organizations moving into the information age, they must endure a bitter metamorphosis by cutting through bureaucratic inertia and instilling an innovative culture. Before the butterfly that Lorenz envisioned can flap its wings in one part of the world and cause a tornado in another, it is borne through a harrowing experience. Its legs fall off, it goes blind, and its body is ripped apart; then it is transformed into a shape more suited to survival. Similarly, military transformation will not be easy. Yet it is necessary to move onto the next plateau of organizational life. It will require vision and courage on the part of senior military and civilian leaders. **JFQ**

change. Likewise, the Office of Force Transformation must keep abreast of the situation by helping to define the operating environment. Systems wane and go through processes of self-renewal and re-creation. And all successful organizations must be reinvented at some point. Lessons from such processes reveal that in nearly every case success followed a carefully phased approach with a focus on developing specific organizational actions.

Opponents of transformation are usually powerful, and the Office of Force Transformation under Admiral Cebrowski must ignite a sense of restlessness with the status quo and instill a sense of urgency. It will require an intense struggle to change military culture and build a constituency. Unfortunately, increases in defense spending—which postpones making strategic choices—only make the process of transformation more difficult. A cut of

30 percent in budget outlays would have compelled the Pentagon to eliminate redundant and legacy systems and pursue programs that provide new core competencies. Competition among the services for resources, and incentives for developing new capabilities, would also facilitate the reallocation of resources.

In the post-9/11 world, the only certainty is that there will be considerable uncertainty over national security. According to the Secretary, the purpose of military transformation is ensuring an ability to deal with unknown challenges over the strategic horizon. The United States has a reputation for technological prowess. Building new weapons systems, developing innovative technologies, and

NOTES

[1] Transformation Study Report, "Transforming Military Operational Capabilities," Secretary of Defense report, April 27, 2001.

[2] Edward Lorenz, *The Essence of Chaos* (Seattle: University of Washington Press, 1993).

AH–1W returning to *USS Bonhomme Richard.*

USS Bonhomme Richard (Spike Call)

MAGTF Area of Operations
Turf War or Doctrinal Necessity?

By MICHAEL R. KENNEDY

I f given a mission and area of operations, Marine air-ground task forces (MAGTFs) fight as a whole, by integrating ground maneuver, rotary and fixed wing aviation, and logistic support. The longstanding insistence by the Marine Corps on retaining operational control over aviation is legendary. Although the omnibus agreement was superseded by Joint Pub 0-2, *The Unified Action Armed Forces* (UNAAF), its principles still apply.

While recent joint operations have sought to improve efficiency by consolidating assets in blocks of like capabilities with functional componency, the Marine Corps is focused on tactical and operational integrity. Unfortunately, joint doctrine is vague on this point and questions surface regarding MAGTF battlespace: Where do the Marines get doctrinal authority to assume command and control over areas of operations? Does this authority include airspace? If not, how is it assigned? Is there a conflict with joint force air component commanders (JFACCs) in prosecuting targets? How do assigned MAGTFs fit into functionally organized joint forces?

Joint Doctrine

UNAAF reaffirms the primacy of joint force commanders and acknowledges that its intent is

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Marines during training exercise in Korea.

U.S. Marine Corps (Roberto Torres)

F/A–18 taking off from USS John C. Stennis.

U.S. Navy (Michael Arteaga)

meeting their needs while maintaining the integrity of service organizations:

[They possess] *full authority to assign missions, redirect efforts, and direct coordination among subordinate commanders. JFCs should allow service tactical and operational* assets and groupings to function generally as they were designed. . . . The MAGTF commander will retain operational control of organic air assets. The primary mission of the MAGTF air combat element is the support of the MAGTF ground element. During joint operations, the MAGTF air assets will normally be in support of the MAGTF mission. The MAGTF commander will make sorties available to the joint force commander, for tasking through the joint force air component commander, for air defense, long-range interdiction, and long-range reconnaissance. Sorties in excess of MAGTF direct support requirement will be provided to the joint force commander for tasking through the joint force air component commander for the support of other components of the joint force or the joint force as a whole.

Unlike other organizations, joint doctrine specifically addresses MAGTFs and their organic aviation assets. UNAAF recognizes that these task forces are organized, trained, and equipped to fight as integrated and interdependent units. And it recognizes that the strength of organizations is synergism. Accordingly, commanders assign missions based on capabilities rather than the sum of aircraft, infantry battalions, and logistic units.

Proponents of functional componency who object to organic MAGTF aviation assets forget that UNAAF makes provisions for commanders to make the following sorties available:

■ *Air defense sorties.* Air superiority is an absolute necessity. If JFCs through JFACCs do not have sufficient assets to provide it, they must use all available assets (including MAGTF). It is assumed that JFCs require MAGTF air superiority sorties until air threats are diminished or JFACCs deploy sufficient assets in theater to ensure air superiority over the entire joint force.

■ *Long-range interdiction sorties.* If MAGTF F/A–18s represent the long-range interdiction assets in theater, marines were the first to arrive or serious problems exist. In either case, JFCs must decide (together with the Marine Corps Forces (MARFOR)/MAGTF commanders) whether advantages of striking long-range interdiction targets outweighs disadvantages, both on MAGTF and

HC–130 refueling
CH–53s, Cobra Gold '02.

1st Combat Camera Squadron (Jerry Morrison)

joint force missions, of stripping away MAGTF direct support sorties. Clearly, the intent of UNAAF is ensuring that MAGTFs are employed generally as designed, but not at the expense of the overall joint force mission.

■ *Long-range reconnaissance.* While the advanced tactical airborne reconnaissance system provides an added capability to a percentage of Marine F/A–18Ds, it is doubtful that these aircraft can fulfill the long-range reconnaissance role. If JFACCs lack assets in theater or the Marines were first in theater, joint force priorities may require MAGTF commanders to provide long-range reconnaissance sorties for JFC tasking.

UNAAF also identifies excess sorties as the excess of MAGTF direct support requirements. Many joint force planners do not realize that MAGTFs are truly task-organized. When JFCs as-

fires, spanning every portion of the battlespace, are the most critical resources

sign the mission and area of operations, task force commanders bring only what is needed to fight. Through analysis and consultation with aviation combat element commanders, they assemble packages of air assets (fixed and rotary wing, command and control, logistic, and air defense) to accomplish missions. Because of the paucity of intertheater lift, they cannot bring more. If done properly, there are few if any excess sorties in the initial stages of the operation. As the operation continues and the threat decreases, excess sorties may be available. Conversely, if task forces are given more battlespace, face greater threats, or are assigned additional ground forces, excess sorties may not be available. If deficits occur, forces can request further sorties through the target nomination process or specific platform/capability support from JFACCs.

As further proof of commitment to the joint force, if MAGTFs have not received a mission and

requisite area of operations, for instance as its forces flow into the theater, all its tactical fixed-wing sorties would be considered excess and be given to JFCs for tasking by JFACCs.

Single Battle

It is a truism that every marine is a rifleman. In boot camp or at officer candidate school, marines learn to be basic riflemen. Those who are pilots, logisticians, or mechanics remember that they must support the guy on the ground. Similarly, the single battle concept directs the entire power of MAGTFs on the assigned mission and the intent of commanders. There is only one task force commander and all his elements are synchronized for maximum effectiveness while accomplishing the JFC-assigned mission. Although areas of operations may be divided into the deep, close, and rear, that is more to facilitate specific warfighting functions than to reassign or divide responsibility for actions in those areas. For example, commanders perform shaping operations in the deep fight to set conditions for the close fight. Sustainment operations are conducted in rear areas to maintain freedom of maneuver or ensure that operations are uninterrupted. Fires, spanning every portion of the battlespace, are the most critical resources. To be expeditionary, MAGTFs must be relatively light in terms of surface fires; firepower advantages must arise through synergy in combined arms. Exponential increases in overall firepower by combined arms is a direct result of habitual relations developed by MAGTF elements as well as common background. Only by using organic aviation assets and integrated command and control can task forces achieve their potential. Failure to uphold the intent of UNAAF, and thus compromising MAGTF integrity, could have several results:

■ *Loss of synergy within the force.* Decreased cohesiveness lessens the ability to accomplish assigned missions as well as overall joint missions.

■ *Decreased flexibility within the joint force.* Despite contrary arguments by proponents of functional componency, MAGTF firepower is more responsive under its own command element. If JFCs need the ability to either flex to different threats or take advantage of fleeting opportunities, these task forces are structured to respond.

■ *Increased potential for fratricide.* Substituting an ad hoc joint air command and control system, unfamiliar with MAGTF operations, for an integrated, highly specialized command and control system will drastically increase the potential for fratricide.

■ *Decreased tempo and loss of shock factor.* A benefit of small but tightly integrated forces is that decisions are made faster, resulting in significant shock to enemies, which enables the Marines to seize the initiative and defeat enemies of greater size and strength. Decreasing the ability to control tempo reduces the effectiveness of overall joint forces as well as MAGTFs.

Task force commanders ultimately get their mission from JFCs. After thorough study and consultation with major subordinate commands, MAGTFs correlate battlespace requirements with the mission and available forces, both on the ground and in the air. Factors such as enemy threats, terrain, numbers and ranges of fixed-wing sorties, and endstates figure into calculating the required size of areas of operations. Areas must then be coordinated with not only adjacent commanders on the ground, such as joint force land component commanders (JFLCCs) in a functionally organized area of responsibility, but also with the airspace control authority—usually JFACCs in functionally organized areas. While some JFACC staffs consider this step as meddling in their patch, it is not. UNAAF states that MAGTF commanders have operational control over their organic air assets and JFCs should allow service assets to function as designed. This means all organic assets, including the Marine air command and control system. Since it is the intent of UNAAF to retain the tactical and operational integrity of MAGTFs, they cannot fight as integrated task forces if the glue that binds them together—their command elements (in this case, Marine air command and control systems as extensions of commanders)—is replaced by joint force structures unfamiliar with task force operations. Air command and control systems provide internal and external connectivity and the commitment to the single battle concept that makes the whole greater than the sum of its parts.

> **fire support coordination lines are permissive measures of coordination and not boundaries as such**

JFACCs control airspace requirements. As air capable components, MAGTFs must make their requirements known to achieve connectivity between the respective airspace control agencies. Because air command and control systems routinely participate in joint and combined exercises, this effort is accomplished with no loss of control or efficiency to JFCs. In fact, in many instances the capabilities are complimentary, thus enhancing overall joint force capabilities.

Enabling commanders to command and control areas, including airspace, does not preclude JFACCs from accomplishing assigned missions. Nor does MAGTF control interfere with JFCs in providing instructions on targets to be attacked. As indicated in Joint Pub 3-09, *Doctrine for Joint Fire Support*, land and naval commanders are authorized to control the priority, timing, and effects of fires in assigned areas. If JFACCs strike fixed and mobile targets in the MAGTF or other areas, they must coordinate with ground commanders in either deliberate or reactive targeting.

Following MAGTF deliberate targeting timelines, they can check direct support air tasking orders, which are sent to JFACCs to merge in-theater air tasking orders. It delineates what targets are scheduled for attack. Since targeting is related to JFC priorities as construed through assigned missions, targets are likely to be listed in air tasking orders. If targets are not listed, JFACCs can request MAGTF planners to strike them. For reactive targeting during execution, commanders can request aircraft to strike targets. That can be easily arranged as long as the strikes are coordinated without disrupting ongoing operations. Even when JFC-level time sensitive targets are detected, the first step is notifying commanders. If MAGTFs cannot strike within the prescribed time, they will override conflicting operations and clear JFACC (or other) assets to prosecute them.

Command and Control

Fire support coordination lines are permissive measures of coordination and not boundaries as such. Task force commanders must retain authority and responsibility for fires beyond the lines (within areas of operations) to ensure that crucial shaping operations are accomplished. Conflicts are resolved quickly through both MAGTF force fires and aviation combat elements to ensure that priorities set by commanders are executed.

Targets can be prosecuted beyond the fire support coordination line as long as task force or ground commanders are notified in time to deconflict and avoid fratricide. They can be prosecuted even if attempts to reach commanders are unsuccessful, but fratricide remains a danger. The other caveat is that fires must not produce negative effects on or short of the fire support coordination line. Though the MAGTF area of operations and airspace beyond the line are commanded and controlled by MAGTF commanders, JFACCs are not precluded from prosecuting time sensitive targets. But task force commanders alone control priorities, timing, and effects of fires in accomplishing JFC-prescribed missions within an area of operation.

Even though task forces are assigned missions and areas of operations, they do not fight in isolation. They conduct and coordinate preplanned and immediate fires, including cross-boundary fires, as part of a joint force. When command relationships and areas of operations are assigned, task force staffs must ensure that no seams exist between MAGTF areas and adjacent warfighters. Toward that end, MAGTFs and MARFORs generally have liaison and staff augmentees with every functional component—joint force

AV–8s aboard
USS Nassau,
Enduring Freedom.

Fleet Combat Camera, Atlantic (Michael Sandberg)

Another notable point is that, although MAGTFs are under the tactical control of JFLCCs, excess MAGTF sorties do not go to JFLCCs but to JFCs for tasking by JFACCs. MAGTF target nominations are forwarded to the JFLCC deep operations coordination center for deliberation at the daily targeting board and subsequent submission to the combined coordination board. Although MAGTFs may be under the tactical control of JFLCCs and will be represented by their members of the board, MARFOR provides JFC with any additional expertise based on specific and unique issues and/or Marine capabilities. In other words, the MARFOR representative at the JFC targeting board must be prepared to address not only force provider issues, but also fires-related issues as applied to the functional component to which they are assigned.

Lessons are either learned or relearned in every operation and exercise. Shortcomings have arisen because of the inability or lack of opportunity to accurately portray the integration of Marine expeditionary force and brigade operations in the joint arena. The first priority must be to establish sound MAGTF doctrine and teach midlevel and senior officers to apply it. Battlespace and command relationships must be addressed as critical to MAGTF integration.

Moreover, the billets to conduct joint operations must be identified. Tables of organization must include joint liaison and augmentation billets needed for training and times of crisis. Though many positions will be assigned as collateral duties or filled by Reservists, the Marine Corps must accept its responsibilities and staff accordingly. Component representatives must be augmented to include expert fires officers to assist component representatives during exercises and operations in which the warfighter—on the expeditionary force or brigade level—is embedded under joint force land or maritime component commanders.

Failure to complete any of these steps may result in a distorted application of unified action and give the perception that MAGTFs will accept the loss of command and control within their areas of operations. It will cost task force and joint force commanders the flexibility, synergy, and seamless integration that MAGTFs bring to the joint fight. **JFQ**

land, maritime, and air component commanders as well as joint special operations task forces—to ensure that coordination procedures are thoroughly understood and executed. MAGTF areas, although configured slightly differently than conventional functional component battlespaces, are easily assimilated into overall joint forces. The primary difference is that MAGTF aviation invariably provides direct support for ground combat elements with organic air command and control instead of being assigned missions by JFACCs.

Certain scenarios may require JFCs to assign MAGTF tactical control to JFLCCs, who then designate an area of operations for the task force. As noted, in consonance with UNAAF, this area must be attended by a proportional amount of airspace for command and control of aviation assets. Airspace is requested by MAGTFs through JFLCCs—when assigned operational or tactical control to JFLCCs—to JFACCs. If given other Army or coalition forces by JFLCCs, MAGTF aviation combat elements may not be able to support the new size of the task force, because of either a lack of aircraft or command and control assets. To compensate, MAGTFs may request more JFACC sorties via the target nomination process or additional JFACC aircraft.

Marines distributing meals-ready-to-eat.

A Time for Conversion
Chaplains and Unified Commanders

By BRADFORD E. ABLESON

Commander Bradford E. Ableson, USN, is command chaplain aboard *USS George Washington* and served with the Marine Corps during Operation Desert Storm.

The genius of the American system is that it ensures freedom of religion for those desiring to exercise their faith as well as freedom from religion for those without interest. The commander bears a responsibility for providing servicemembers with the opportunity to freely exercise religion under the first amendment. Until recently, however, military leaders could ignore religious matters external to the Armed Forces with relative impunity. That is no longer the case, for religion on the operational level transcends the needs of military personnel. Indeed, unified commanders are faced with a pluralistic and volatile world where religion represents a significant force.

The complexity of religion in various areas of responsibility is underscored by conspicuous failures in the past. It is acknowledged, for instance, that the Iranian revolution of 1979 caught the world unprepared largely because most people did not expect nations to embrace fundamentalism. But recognizing Islam as a volatile force did not

Military chaplaincies in the Armed Forces predate the founding of the Nation. Chaplains served in the Continental Army and Navy and played a continuing role in every war and most other conflicts since 1775. Chaplaincies in the Army, Navy (which also minister to the Marine Corps and Coast Guard), and Air Force provide for the free exercise of religion under the first amendment.

Chaplains must have an accredited undergraduate degree and a three-year master of divinity degree (or academic equivalent). Each is an ordained or certified minister drawn from one of over a hundred faith groups that are registered to provide chaplains. Endorsement by a recognized faith group is also required.

Each service provides professional training from the basic through field grade and senior levels. The Goldwater-Nichols Act exempted chaplains from joint manpower considerations; thus there are no joint professional military education requirements for chaplaincies. Accordingly, each service differs regarding education for chaplains serving with unified commands and JTFs. **JFQ**

preclude subsequent events that were regrettable. For example, in 1991 the Air Force dropped meals-ready-to-eat containing pork to starving Kurds, who were embittered by what was seen as a cruel dilemma—go hungry or violate religious dietary laws. Ironically, rations without pork could have been dropped. Islam became more than a matter of public relations in Somalia when Bengali troops hesitated in providing fire support for American forces because they did not know if a *fatwah* (an Islamic legal ruling) had been issued authorizing an attack on their fellow Muslims.

Joint Pub 1-05 fails to distinguish the responsibilities of chaplains with regard to the levels of war

It is clear in light of the increasing stakes that commanders should take religion seriously in using the range of tools available to them. Religious issues and their implications are examined by divers staff elements, including intelligence, information operations, psychological operations, and unified command chaplains, who are the principal advisors on religious matters.

Unfortunately, there are difficulties that undercut support by chaplains. Senior billets for joint chaplains are justified on the basis of advice they give to commanders, yet poorly formulated doctrine virtually ensures that commanders are provided with little guidance on what to expect from chaplains. The problem is exacerbated by a tendency of the service chaplaincies to produce senior officers who are more attuned to meeting the needs for free exercise and accommodation of religion than advising senior commanders on religious issues. The time for change is now. Three

issues require speedy and dramatic improvement: doctrine and policy, expectation baselines for unified command chaplains, and personnel management and training.

Doctrine and Policy

Joint Pub 1-05, *Religious Ministry Support for Joint Operations*, is inadequate. It fails to:

■ deal with religion beyond accommodation issues for U.S. personnel

■ provide a meaningful framework for religious analysis in an area of operation

■ distinguish the responsibilities of chaplains with regard to the levels of war; thus the same duties are assumed for unified command and battalion-level chaplains

■ define the relationships among unified command, joint task force, and supporting service element chaplaincies.

In fact, this publication was not intended for unified commanders—it is a handbook for chaplains. Thus commanders have no doctrine on which to base expectations of chaplains on the operational level. This lack of clarity is not confined to one publication. When religious issues arise, the role of chaplains often goes unmentioned. In Joint Pub 3-07, *Military Operations Other Than War*, Joint Pub 3-07.3, *Peace Keeping Operations*, and Joint Pub 3-57, *Civil Affairs*, religion is discussed but the function of chaplains is not articulated. This deficiency enables chaplains to fashion their roles. According to Captain M.R. Ferguson, USN, staff chaplain to the Chairman:

Chaplains are unpredictable. . . . [Commanders] *tell me they hold their breath as the new chaplain reports aboard. This is also indicative of the moral/morale impact a chaplain can have on a command, which is for better or worse. This helps explain why* [commanders] *will often insert themselves into the assignment process with firm, by-name requests. Because they perceive the quality base as so uneven and unpredictable, they're not sure what they're going to get.*

Given this lack of guidance, it is no surprise that the quality of chaplaincy offered to unified commanders varies dramatically. A chaplain who is professional will provide outstanding service. Conversely, one without such qualities may define his role in minimalist terms and exert virtually no influence. Ferguson observed that unified command chaplains span the spectrum from optimal performers to underachieving house pastors, whose efforts are confined to headquarters, providing services that could be delivered by junior officers. Unified command chaplains who fail to provide religious advisory support create a void that non-chaplain colleagues must fill.

Army National Guard chaplain at Ground Zero in New York.

An important first step is establishing a consistent set of standards to enable commanders to know what to expect and, as a result, what to demand from chaplains. In turn, this effort will also serve as a benchmark. The most effective way to professionalize is by formalizing the precepts of joint ministry through a revision of Joint Pub 1-05. At a minimum, this new publication should:

■ articulate and link expectations of chaplains to the level of war for which their reporting seniors are responsible

■ require unified command chaplains to function beyond the mere provision and facilitation role in order to become strategic/operational assets to the unified commanders

■ define relationships between chaplains in the joint force hierarchy

■ create a meaningful framework for religious analysis within the region

■ include and codify mandatory functions and tasks to ensure that unified commanders are optimally served.

This task is compounded by the fact that doctrine will have to be developed from scratch. Defining performance standards may be one of the easiest aspects of the Joint Pub 1-05 revision. Experienced chaplains—incumbents and former billet holders—are available to draft a document. Under the aegis of the CJCS chaplain, position descriptions could be quickly written and vetted by U.S. Joint Forces Command (JFCOM) to help action officers in revising the publication.

Delineation of chaplain duties by level of war will be more difficult. Chaplains have a long history of functioning on the tactical level, and most service chaplaincies train to that tier. In most areas, religious ministry for personnel is provided by chaplains organic to units chopped to unified commanders. A void exists between unified and tactical commanders. No one chaplain can hope to convey the intent of unified commanders on myriad religious and chaplain-related issues without effective intermediaries. This reality makes JTF chaplains key assets, but their roles are ill defined. Unlike tactical-level billets that are mastered in the course of a career, these positions frequently are filled arbitrarily by inadequately prepared individuals. Once assigned, neophytes find no rulebook to review, scarce training to draw upon, and few predecessors to consult. Though some learn on the job to become outstanding performers, their successes can be attributed more to personal talent than to a system designed to produce excellence.

The chaplain of U.S. European Command (EUCOM), for instance, observes that deficits in doctrine and training make JTF chaplains a weak link in his area. Formulating standards—many of which will be applied in a joint capacity for the first time—is critical and should be immediately tasked to JFCOM. In addition to formulating required functions and tasks, there is a pressing need to facilitate a training continuum for chaplains. The logical place for training to be administered is at the Joint Warfighting Center where JTF staffs are prepared prior to deployment. If that training operated as a stand-alone activity, it would produce a pool from which qualified individuals could be selected. In addition, it would reach chaplains before assuming duties with unified commands and JTFs. Optimally, however, they would train with the task force staffs on which they would eventually serve.

Expectation Baselines

Commanders should be able to look to the unified command chaplain for a mastery of the religious issues within a region as a baseline expectation. Such a skill set must transcend the mere provision and facilitation of worship for personnel. It should also entail:

■ the ability to analyze conflicts for religious content

■ the ability to advise commanders on mitigation of religiously-charged scenarios

■ comprehensive knowledge of religion in the area before hostilities commence

■ the coordination and execution of religious engagement efforts.

The first baseline expectation is the ability to analyze. Unified command chaplains must be able to assess regional conflicts to determine which are patently religious, which are not religious, and which, although not primarily religious, could ignite into a so-called holy war.

Conducting service, *USS Kitty Hawk*.

USS Kitty Hawk (William H. Ramsey)

It is routinely claimed that more people have perished in the name of God than for any other cause; yet instead of confirming the frequency of religious warfare, that assertion reflects a human penchant to eulogize war dead in ultimate terms. The 20th century was the bloodiest in history, but most victims did not die in religious conflicts. Yet theological language became the currency of the bereaved. This tendency is reflected by national leaders in almost every war. Thus it is important to understand that despite the appeal to religious rhetoric, most conflicts are nonsectarian.

despite the appeal to religious rhetoric, most conflicts are nonsectarian

There are essentially three types of war. The first has a primarily religious component. Although it involves contested land, the Israeli-Palestinian conflict serves as a stark example. The explosion of violence since the establishment of the state of Israel in 1948 and the extent to which passions on both sides follow religious lines even outside the region indicate a strong sectarian component. Such holy wars are very difficult to manage, and when hostilities affect U.S. interests the response will require the application of all elements of national power.

Another type of war is not religious at all despite the use of religious vernacular. The strife in Northern Ireland, for instance, is portrayed in theological terms but is devoid of theological issues. It would be a mistake for any nation to view such conflicts as holy wars. Indeed, wars are seldom religious when the issue is which ethnic groups will govern their neighbors. Unified commanders should approach nonsectarian clashes of conflicting interests understanding that religious monikers often mask a conspicuous lack of religious content.

The third type of conflict is not primarily religious but contains a religious component with a potential to mobilize nationalist and ethnic passions. Examples include Afghanistan, Chechnya, Indonesia, Kashmir, Kosovo, Nigeria, Sri Lanka, and Sudan. Such wars may involve sites with religious significance to combatants. Chaplains who advise commanders face challenges because mishandling such issues could incite religious clashes, changing the dynamic of the conflict.

This consideration raises a second baseline of expectation for unified command chaplains, advising on mitigating religiously-charged events. Invoking the term *crusade* to describe actions against terrorism after 9/11 was unfortunate. No other term has overtones that mobilize as much anti-Western sentiment across the pan-Arabic world. Chaplains must ensure that commanders and staffs are aware of trip wires while lowering the religious quotient in the conflict.

Following an act of terrorism, chaplains should discern the level of solidarity between the religious community and terrorists by providing an informed view of the dynamic between religion and so-called religious terrorism to enable commanders to make nuanced assessments.

Unified command chaplains can lower volatility in theater by analyzing religious polity and its implications. One example on the strategic level occurred in the opening days of the global war against terrorism. The appeal to the rhetoric of holy war by terrorists led some in the Pentagon to appeal to just war theory by exploiting Muslim disapproval of attacks on the West. Specifically, it included soliciting *fatwahs* in support of American military efforts. The CJCS chaplain argued that such a notion was futile at best and explosive at worst. Because Islam lacks a central judicatory, he stated that any U.S.-issued *fatwah* would be discredited by radical elements in the Middle East and Southwest Asia. Moreover, the United States would theologize the war along divisive lines to the detriment of coalition efforts. While such reasoning appears sound in retrospect, it was viewed as noncooperative by those who conceived the idea as a brilliant information operation.

Chaplain of the Marine Corps with the fleet.

15th Marine Expeditionary Unit (Matthew J. Decker)

The third baseline for chaplains must be a knowledge of the religions within a given region prior to hostilities. Yet in a pluralistic context, such as EUCOM which encompasses 93 nations, it is virtually impossible for an officer to master the religious dynamics without drawing on extensive resources. Vital assistance is found in missions where embassy personnel understand the religion, folklore, and issues of contention in the country.

Chaplains should monitor the pulse of an area through relations, under the direction of the combatant command, with American embassies selected in view of theater-strategic considerations. Moreover, they should speak with designated local points of contact regularly. Defense attachés are acceptable, but a better choice would be political counselors, who are tasked to interpret local attitudes toward the United States. Although formalized relationships with every mission would be impractical, unified command chaplains should monitor annual human rights reports.

Moreover, given regional differences, chaplains must be prepared to address issues ranging from mortuary practices to bombardment on holy days. For instance, in conducting the global war on terrorism, questions arose on continuing military operations during Ramadan. Leaders should consider what Muslims have done in such situations. History reveals many operations carried out by Muslims. During Ramadan, for instance, Mohammed captured Mecca, Egypt and Syria began a war with Israel in 1973, and Iran and Iraq fought in the 1980s. More recently, NATO bombed Serbia on Orthodox feast of Easter. That decision will be judged by history, but the Serbs noted that the only other enemy to bomb them on Easter was Germany during World War II.

Coordination and execution of religious engagement is the fourth baseline of effectiveness. It enhances goodwill among allies and neutrals and creates more informed chaplains to advise their commanders. A review of theater plans for all unified commands, however, reveals conspicuously few religious activities of this kind.

Unified command chaplains should be fully integrated into the theater engagement planning management information system, which tracks the way nations within the region are engaged. Military-to-military contact by chaplains, international chaplaincy conferences, and coordination of humanitarian assistance are a few such initiatives. Using religion for engagement can strengthen ties with allies and facilitate a thaw with former enemies. The EUCOM command chaplain, for instance, recently organized an event with participation from Russia, Ukraine, Georgia, Rumania, Bulgaria, Armenia, and Estonia.

In addition to what unified command chaplains should do, there is also the matter of what they should not do. First, they must maintain their noncombatant status. They should not be assigned duties such as planning information or psychological operations. Insights on religion can have utility in a conflict, but chaplains should not be involved in translating that expertise into acts of war. Similarly, they may learn things that are pertinent to staff intelligence needs (for example, that Muslim allies may be hesitant to kill Muslim enemies without a *fatwah*). Yet the chaplain must never become, or be perceived to be, an intelligence operative.

in addition to what chaplains should do, there is also the matter of what they should not do

Second, one must distinguish between ministerial duties which have utility for information operations and those which do not. When Taliban prisoners moved to Camp X-ray at Guantanamo Bay in Cuba, a Muslim chaplain was ordered to the facility. This Navy chaplain conducted normal duties as a Muslim cleric, including daily prayers over the camp loudspeaker system, and the story received widespread press coverage. No doubt the entire situation was regarded as an information operations and public affairs coup. Yet it was acceptable because the chaplain performed standard religious duties at a military installation. If asked to counsel prisoners and report to camp officials, however, his activities would have been illegal, unethical, and overall highly detrimental.

Management and Training

To improve the performance of chaplains, management and training must be dramatically improved. As indicated, joint doctrine fails to articulate clear distinctions in the duties of chaplains. Formulating responsibilities on each level is a first step. Unified command chaplains must be able to function on the strategic and operational levels. JTF chaplains must be qualified to perform on the operational level while unit chaplains serve on the tactical level. The latter will rightly focus on troops, but benefit can be derived from guidance on the area provided by unified commanders and JTF chaplains. These responsibilities should also be listed in the joint mission essential task list to enable mission-to-task formulations and corresponding training to be developed and required.

Assignment policy also merits consideration. Joint billets are designated as either rotational or service specific. At command and staff level, billets rotated among chaplaincies on a three-year basis include positions with the Office of the Secretary of Defense, Joint Chiefs of Staff, and U.S. Central, European, Special Operations, Southern, and Northern Commands, while the chaplains at U.S. Joint Forces and Pacific Commands are always naval officers. This structure is problematic for the two latter commands because their chaplains simultaneously serve as the fleet chaplains for U.S. Atlantic and Pacific Fleets, respectively. The charter of unified command chaplains cannot be fulfilled on a part-time basis, no matter how talented the assignee.

The systemic flaws that undercut religious support by chaplains to unified commanders are compounded by their lack of training requirements. Other than seniority there are no prerequisites. Phase I joint professional education should be mandatory and those without Phase II should attend the Joint Forces Staff College en route to command assignments. Chaplains who are flag officers should advocate these standards when convened as members of the Armed Forces Chaplains Board. Absent such standards, requirements for chaplains should be set at the CJCS level.

Finally, because of the cultural and religious nuances found in various regions, prospective unified command chaplains should be sent to the Foreign Service Institute, which offers two-week courses on every country in the world. Attendance could help ensure a more prepared chaplain and a better-served commander.

Despite the implications of religion for operations, commanders do not enjoy support from chaplains who are assigned as their primary advisors on such matters. Flawed joint doctrine offers inadequate guidance on what to expect. To make matters worse, the only qualifications for serving as a unified command chaplain are seniority and a nomination from the service chief of chaplains. The resources exist to correct the problem and radically enhance the quality of support: changes in joint doctrine and reformulation of training requirements. These changes will enable commanders to know what they should expect and chaplains to know what they should provide. **JFQ**

Delivering assistance, Enduring Freedom.
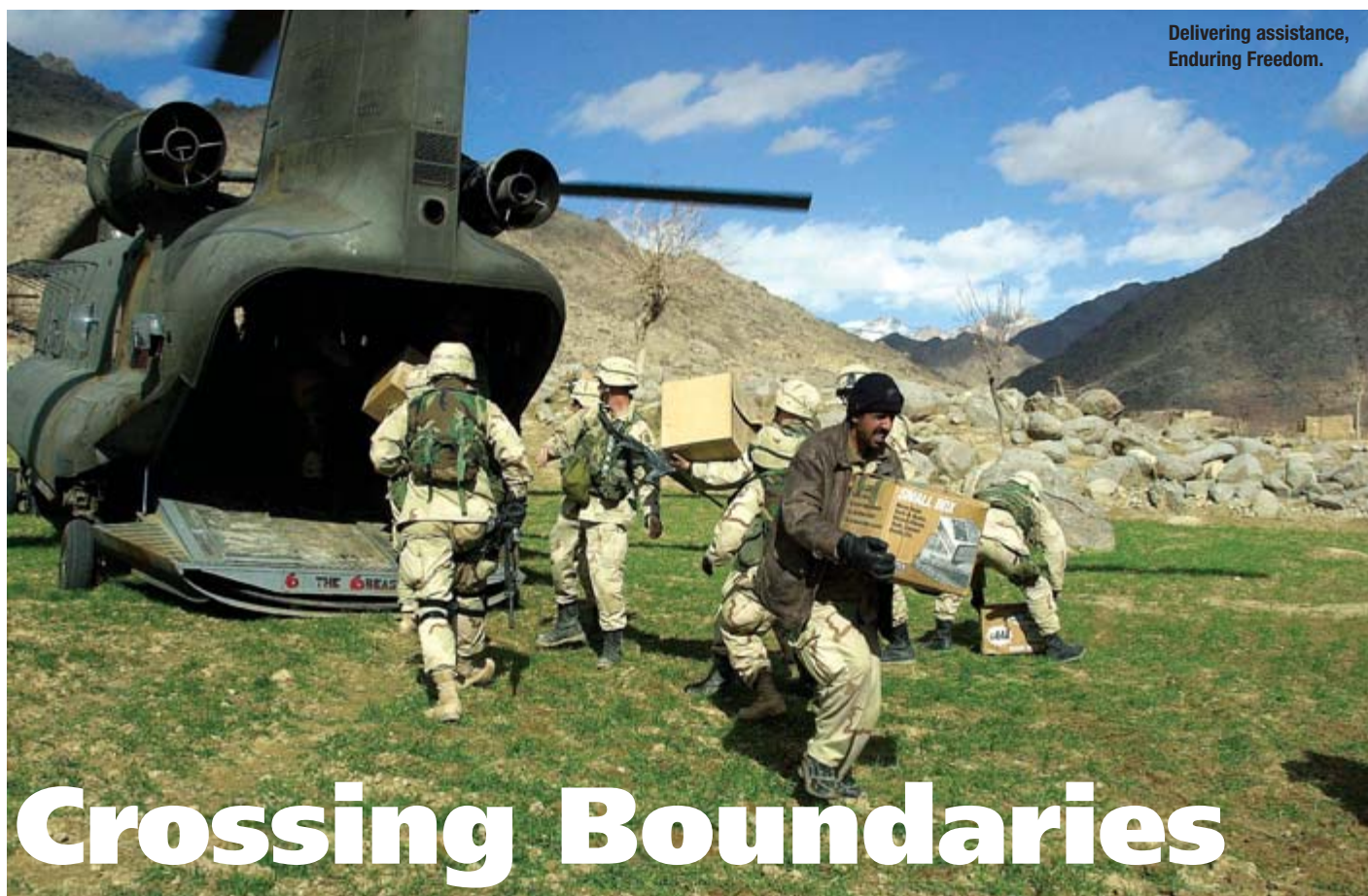
55th Signal Company (Leopold Medina, Jr.)

Crossing Boundaries

Interagency Cooperation and the Military

By PATRICK N. KELLEHER

The expanding role of combatant commanders in the international arena necessitates greater interagency linkages. The concept of full spectrum dominance in *Joint Vision 2020*, especially in the context of military operations other than war (MOOTW), must recognize that the intermingling of humanitarian assistance, combat operations, and nationbuilding is indicative of future responses to security challenges.

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In the past, narrowly defined responsibilities were carried out in spite of interagency rivalry. But in a multipolar world characterized by asymmetric threats and MOOTW, the traditional lines of authority must be overcome. In the parlance of *JV 2020*, full spectrum dominance foresees "U.S. forces operating unilaterally or with multinational and interagency partners to defeat any adversary and control any situation across the full range of military options." As such, it reflects the elements of victory that the President cited after 9/11. But recognizing the building blocks and constructing a coherent response are two different matters.

While there have been calls for better institutional links among agencies, doubt arises over the

means of ensuring a synchronized response. Even given larger foreign assistance requests by the Pentagon, one press account described regional commanders as the "modern-day equivalent to the Roman Empire's proconsuls" who serve as "unconventional centers of U.S. foreign policy."[1] The primary instrument of national power responsible for implementing foreign policy is arguably the Department of Defense. Although the efficacy of unified commanders serving as lead agents in this arena is open to debate, they are key players in realizing foreign policy objectives.

Developmental assistance and humanitarian aid as administered under the U.S. Agency for International Development (USAID) are the most obvious manifestations of foreign policy that can be compared to military peacetime engagement. Thus cross-cultural cooperation in peace furnishes the basis for rapidly fusing capabilities in contingency response, particularly for MOOTW. Regardless of the need for more effective interagency coordination, room for improvement remains.

The links between USAID and regional commanders suggests two areas of improvement. Though a means of conducting interagency coordination exists on the strategic level, coordination on the strategic/operational and, to an extent, the tactical level must be enhanced. A coordinated response blends civilian assets in mission planning and execution to manage nonmilitary resources for MOOTW and minimize the diversion of resources from military objectives. Only in that way can a synergistic approach be developed to attain peacetime and contingency goals.

a coordinated response blends civilian assets in mission planning and execution to manage nonmilitary resources for MOOTW

The first step involves creating an additional position on unified command staffs: a senior humanitarian advisor, equivalent in rank to political advisors (POLADs). Just as the latter provides recommendations on political-military interaction, the former will function as the primary facilitator of synchronized development and humanitarian activities, from military actions and peacetime engagement to combat operations and post-conflict activities.

The next step is improving coordination between the humanitarian/developmental assistance community and regional commands and involves convening annual or biennial planning conferences of desk and action officers. In addition to military planners and USAID regional experts, a regional interagency conference would

include specialists from the Office of the Secretary of Defense, Joint Staff, Department of State, Central Intelligence Agency, and National Security Council.

Existing Coordination

National Security Presidential Directive 1, issued in February 2001, redefined interagency arrangements under policy coordination committees to manage development and implementation of national security policy. Replacing interagency working groups, committees reflect earlier regional and functional organizations by providing recommendations based on the consolidated input of the Departments of State and Defense, among other agencies. According to Joint Pub 3-08, *Interagency Coordination during Joint Operations*, the Office of the Secretary of Defense and Joint Staff execute most interagency coordination on the strategic level. This coordination sets the stage for directing commands on both the operational and tactical levels. Although an evaluation of this system is beyond the scope of this analysis, it depends largely on personalities. This warrants note since an institutionalized method for policy coordination on the strategic level exists. Institutional weakness is apparent on the strategic/operational level when policy formulation evolves into policy implementation. Despite the need for doctrine on coordination for combatant commands down, which is explicitly outlined in joint publications, existing institutional linkages are insufficient.

Joint Pub 3-0, *Doctrine for Joint Operations*, outlines the requirement for an integrated and coordinated response:

Joint force commanders should ensure that their joint operations are integrated and synchronized in time, space, and purpose with the actions of other military force (multinational operations) and nonmilitary organizations (government organizations such as the U.S. Agency for International Development, nongovernmental organizations (NGOs), and the U.N.).

This publication also states that integrating the Armed Forces with the capabilities of other Federal agencies, nongovernmental organizations, allied and friendly countries, and the United Nations is required for decisive joint combat power. On the strategic/operational level, combatant commands have two institutional means of synchronizing interagency actions ongoing in theater: POLADs and country teams. Various commands have adopted additional local (and often ad hoc) mechanisms, but these attempts at coordination fall short of qualifying as institutional. Without detracting from the utility of incorporating both sources in regional planning, neither mechanism provides the range of

Distributing food in Afghanistan.

feedback to properly integrate nonmilitary elements into joint or combined operations.

Foreign service officers from the Department of State, POLADs use their extensive regional experience to help commanders translate political goals into military objectives. They also facilitate communication between political and military planners by virtue of their expertise on the intricacies of foreign policy. While POLADs have experience and political *savoir-faire* to ensure linkage with the Department of State, they do not contribute the same degree of coordination with other agencies and nongovernmental organizations that provide developmental and humanitarian assistance. This sector is the major provider of aid in addition to the United Nations, International Committee of the Red Cross, and International Organization for Migration.

The Web site of the Bureau of Population, Refugees, and Migration, the largest contributor of humanitarian assistance within the Department of State, confirms this relationship:

U.S. refugee policy is based on the premise that the care of refugees and other conflict victims and the pursuit of permanent solutions for refugee crises are shared international responsibilities. Accordingly, most overseas assistance funds will be contributed to programs administered by international organizations.[2]

A comparison of recent allocations for programs in and around Sudan substantiates the role of USAID as the primary conduit to NGOs as opposed to the Department of State. In FY99, the Bureau of Population, Refugees, and Migration provided $100 million to the United Nations and Red Cross in response to Africa-wide appeals, some for assistance to Sudan. Donations to NGOs with regional programs totaled only $2.5 million. At the same time, USAID gave $95 million in food and grants to organizations offering relief in the same area. NGOs received $86 million and international organizations $8 million.

The same pattern emerged in FY01, when the United States gave $83.8 million in direct aid to Afghanistan and Central Asia, of which $50.5 million in USAID funds went to NGO assistance for Afghanistan. Contributions by the Department of State that totalled $32.6 million were directed primarily to international organizations in response

Providing relief in Bosnia-Herzegovina.

982d Signal Company (Tarina Reed)

to regional appeals; only $5 million went to NGOs working with Afghan beneficiaries. To date in FY02, the Government has obligated $365 million for humanitarian and reconstruction assistance in Central Asia. USAID has provided $200 million in food and direct assistance while the $92 million State Department contributions have again responded to regional and emergency appeals. The balance reflects contributions by agencies such as the Department of Agriculture.

The other tool available to commanders for operational level interagency coordination is the country team. Headed by the ambassador and composed of representatives of various agencies, it can provide specific recommendations on peacetime engagement or contingency responses. CJCS Manual 3113.01A, *Theater Engagement Planning*, refers to the role of the teams in contingencies. While providing an interagency perspective, country teams have disadvantages. By definition their focus is limited; commands may not have adequate staff to interpret competing priorities advocated by various teams in any region. Secondly, because POLADs as senior government liaisons to commanders represent only one of the many agencies on the country team, the potential exists for biased priorities and misunderstanding. Lastly, because USAID does not maintain

staff in every diplomatic mission, country teams do not offer an accurate representation of all ongoing or funded efforts; while the United States has embassies or consulates in 144 countries, USAID has missions in 84. Developing a theater-wide operational picture of governmental, non-governmental, and international activities becomes more problematic. The critical need is finding ways to connect commands with agencies that provide humanitarian and developmental assistance, specifically with USAID. The necessity of such a linkage becomes clear when one looks at the commonality among peacetime engagement and developmental and humanitarian assistance programs and in analyzing the operational necessities required to ensure unity of effort in contingency operations.

Peacetime Engagement

In essence, the twin objectives of promoting democracy and avoiding conflict underlie most foreign peacetime engagement activities regardless of the agency or originating organization. The stated purpose of USAID, as an independent agency that receives guidance from the Secretary of State, is advancing foreign policy goals by supporting long-term and equitable economic growth, agriculture, and trade; enhancing global health; and promoting democracy, conflict prevention, and humanitarian assistance. The USAID mandate reflects a key element of national military strategy, which addresses operations in terms of shaping, responding, and preparing. The latest national military strategy stated: "By increasing understanding and reducing uncertainty, engagement builds constructive security arrangements, helps promote the development of democratic institutions, and helps keep some countries from becoming adversaries." While updated strategy is forthcoming, the necessity to shape the international environment will undoubtedly remain an essential element. To quantify and provide structure and coherence to shaping operations, each commander develops a theater engagement plan. As outlined in CJCS Manual 3113.01A, the plan is a biennial effort to "link [unified command] planned regional engagement activities with national strategic objectives," in part by establishing regional priorities and including the method to be used in determining those priorities. The range of engagement activities to support priorities includes military-to-military contacts, security assistance, and combined exercises. Theater engagement plans include humanitarian assistance as one of their areas of focus.

Though combatant commands develop their theater plans to structure engagement, regional

and functional bureaus within USAID develop approaches to provide frameworks and set priorities annually for humanitarian and developmental assistance. Specifically targeting diverse areas such as health care, agriculture, education, conflict transition, and disaster mitigation, USAID foreign assistance embraces activities to foster economic and political development in support of national interests. As primarily a donor, USAID implements its priorities by funding nongovernmental and international organizations, including the United Nations. Choosing organizations and programs to fund enables the agency to direct its identified objectives. In addition, its officials interface with donors from Japan, Canada, the United Kingdom, the European Union, and other countries and agencies of the United Nations to develop and maintain a common humanitarian picture, establish boundaries of responsibility, balance priorities, and synchronize activities. Although the USAID and command approaches to peacetime engagement may vary, the common purpose necessitates mutual understanding, sharing information, and concurrence on synchronization of mutual benefits similar to the continuous process of worldwide developmental/humanitarian coordination. That is not to claim that interagency programmatic implementation on the ground is desirable in every case. Regardless of implementation decisions, military priorities developed without factoring in regional expertise from other U.S. agencies precludes the efficient and effective implementation of a vision. Until there is synchronization between engagement initiatives and foreign assistance, America loses opportunities to capitalize on comparative advantages, does not make the best use of resources, and could fail to reach strategic objectives.

as primarily a donor, USAID implements its priorities by funding nongovernmental and international organizations

Unity of Effort

In the case of humanitarian assistance, cooperation must maintain a common response. As Joint Pub 3-16, *Joint Doctrine for Multinational Operations*, states, interagency relationships must be "defined with respect to military support before commencement of operations other than war." Although some coordination mechanisms may be established immediately prior to operations, there is generally insufficient opportunity to develop and maintain relationships to maximize synergy and ensure unity of effort. Instead of focusing on actions and outcomes, time and effort are expended in developing relations. The inability to sustain an institutional linkage was noted at a symposium on civil-military connections which concluded: "There is a history of relearning the requirement for and the modalities of civil-military operations about as often as there is a major change of command or new complex contingency." As one participant, General Anthony Zinni, USMC (Ret.), noted, "The status quo is [ad hoc] every time. So in the next conference, someone will say that they have just discovered NGOs, just discovered that they are different, just discovered that you actually need to coordinate with them. . . . There needs to be change."[3]

While the simultaneous pursuit of humanitarian and military objectives in Afghanistan was somewhat unique, coordination was virtually nonexistent before the bombing. Because avoiding famine was a priority, U.S. Central Command (CENTCOM) established the Coalition Joint Civil Military Operations Task Force (CJCMOTF) to facilitate linkage. Under guidance of the coalition joint forces land component commander with headquarters in Kabul, the task force also maintained a liaison cell at headquarters in Tampa. To effect coordination with the humanitarian community, CJCMOTF created the humanitarian affairs working group. Members included coalition partners; representatives from the Office of Foreign Disaster Assistance (OFDA) at USAID; representatives from InterAction, an NGO umbrella organization; and the United Nations.

On the ground in Afghanistan, CJCMOTF established several coalition humanitarian liaison cells, essentially equivalent to civil-military operation centers (CMOCs), in several cities to conduct tactical level liaison with NGO and USAID representatives.[4] According to officials, interagency synchronization, although initially effective, has gradually become less so on both the tactical and operational levels. The problem does not stem from the organizational structure built to facilitate cooperation but from the lack of connectivity between regional combatant commands—in this case CENTCOM—and USAID. In part because of cultural reluctance to collocate on the ground with coalition humanitarian liaison cells as well as nonpermanent staffing provided to the command by OFDA, weakened coordination links also derive from the increasing tendency, at least from the humanitarian perspective, for military planners to be less inclusive of nonmilitary elements since the threat of famine has abated. Although coordination meetings still occur, USAID officials cite a decreased ability to access higher-level CENTCOM staff.[5]

One issue in particular that has damaged humanitarian-military relationships, and that could have been avoided with a better communication

process, is the practice of some military personnel wearing civilian clothes in Afghanistan. A perceived disregard for humanitarian security concerns by CENTCOM has not been conducive to continued collaboration. While the cooperative relations between the USAID disaster assistance response team and coalition humanitarian liaison cells has helped synchronize reconstruction projects in the larger rebuilding effort, tensions with regard to force protection threaten to impede unity of effort. Humanitarian workers derive security from impartiality, neutrality, and independence. Adhering to these principles enables humanitarian personnel, specifically NGOs, to operate in otherwise insecure areas. Workers who abide by these principles—in that they do not represent a government—can venture where others cannot.

From the humanitarian perspective, military personnel in mufti, who are armed and engaged in nominally humanitarian activities, put civilians at risk because their enemies do not differentiate. The humanitarian community thinks that CENTCOM does not appreciate that while civilian clothes may increase near-term protection of the military, it reduces the security of nonmilitary personnel. What the humanitarian community perceives as unresponsiveness and lack of concern over NGOs reinforces the stereotype of the Armed Forces as inflexible and myopic. A long-term solution that improved interagency cooperation would avoid misunderstanding and balance the concerns of both communities against mission requirements.

senior humanitarian advisors would help synchronize developmental and humanitarian activities

The Right Direction

The coordinated approach used at U.S. Southern Command (SOUTHCOM) offers a model for institutionalizing linkages between humanitarian/development communities and the military. As a result of command responses to natural disasters in the region, informal coordination has evolved for the type of interagency response required for MOOTW, in this case disaster assistance. Aside from representing only a partial solution, the disadvantages are conducting operations on an ad hoc basis. OFDA, as the lead agency for international relief, maintains a liaison officer who assists in developing the SOUTHCOM plan. Working in the directorate of logistics (J-4), this officer assists in developing the humanitarian affairs portion of the theater engagement plan and participates in other interagency planning when required. He serves as the focal point in contingencies to ensure a coordination of command assets, existing NGO capabilities, and actions by

nonmilitary agencies recommended by OFDA. The liaison officer generally acts through POLADS to raise visibility on issues warranting closer attention from commanders. The success of this symbiotic arrangement in facilitating engagement and relief operations, although it is still ad hoc and informal, shows that it is a point of departure from which to mold an institutional solution.

Finding A Solution

A two-pronged approach can institutionalize humanitarian affairs and military linkages and improve information sharing and planning. The first step involves senior humanitarian advisors. Like POLADs, who tutor unified commanders on political-military affairs, these advisors would help synchronize developmental and humanitarian activities in a range of military actions from peacetime engagement to combat operations and post-conflict situations. Their assignments could be normal rotational tours for foreign service officers or retired USAID officials.

Commanders would be provided with another official with extensive regional expertise to institutionalize relations between the military and humanitarian communities, increasing the level of familiarity. Providing access for commanders and their staffs to the humanitarian community may preclude the continuous process Zinni identified. In planning peacetime engagement, advisors could maximize the comparative advantage of humanitarian assistance to support mutual objectives. Moreover, they would ensure compliance with Title 10, U.S. Code, which requires that military humanitarian and civic action complement rather than duplicate other forms of social or economic assistance provided by the United States.

Institutionalization would avoid tendencies to adopt ad hoc approaches in operations short of war, including post-conflict transition. Maintaining senior humanitarian advisors on command staffs would provide a focal point for coordinating crisis response. As subject area experts within commands, advisors could maintain contacts with other agencies as well as nongovernmental and international organizations to quickly create liaison and planning cells. Their presence could ensure that the intent of Joint Publications 3-0 and 3-16 is achieved through early and continuous joint and interagency planning by weighing the capabilities of other organizations in assessments conducted by commanders. Finally, despite the frequency of NGO and military interaction, there are cultural and historical biases often based on stereotyping. These advisors would generate a more positive linkage by institutionalizing

Bringing medical help to Afghan people.

recognition of geopolitical realities calling for coordination. In effect, shifting the paradigm by deconstructing previous assumptions will require adaptation which leads to more effective implementation of foreign policy over the long run.

The second step in improving interagency coordination is planning conferences. As one former Assistant Secretary of State for Political-Military Affairs noted, "Rather than viewing diplomacy and force as opposing ends of the spectrum of national policy—with one used when the other fails—it is important to recognize that each must seamlessly support the other. . . ."[6] The amalgamation of multiagency planning on the operational level by sharing ideas and visions offers an avenue to achieve this seamless integration. Although the logistic and planning challenges could be significant, the advantages of providing a forum for orchestrating regional activities by different agencies would likely outweigh administrative obstacles.

Since this effort pertains to the relationship between regional commands and USAID, a shared planning effort would complement the activities of senior humanitarian advisors and enhance unity of effort across a range of operations. In addition to mutual understanding, bridging the cultural divide, and disproving stereotypes, joint planning could draw on a wealth of regional expertise. As opposed to military officers who are frequently reassigned, USAID officers spend much longer developing their expertise, often living for four or more years in country. This is not to claim that a planning conference will result in increased interaction in the field. In fact, from a humanitarian perspective, a degree of separation is desirable

for everything save for a contingency response to maintain at least a perception of neutrality or impartiality. Nonetheless, the contribution of information sharing to a common regional vision to enhance planning and execution is clear.

The military and humanitarian affairs communities have traditionally been at opposite ends of the spectrum, according to the popular stereotype. Many may argue that a synergistic relationship is neither desirable nor possible. But in a multipolar world, asymmetric threats and the frequency of military intercession in operations short of war require overcoming interagency rivalry to achieve full spectrum dominance. As the Armed Forces learned in Desert One, interservice rivalry leads to failure. The global war on terrorism and the summons by the President to synchronize instruments of national power comprise a watershed for breaking down barriers. Interagency coordination must be improved for the United States to continue its dominant role across a range of military operations. The opportunity to sow the seeds of interagency cooperation should not be missed.   **JFQ**

NOTES

[1] Dana Priest, "U.S. Commanders Wield Rising Clout, Autonomy," *The Washington Post*, September 28, 2000, A-1.

[2] U.S. Department of State, Bureau of Population, Refugees and Migration Funding, see reference at http://www.state.gov/g/prm/fund/.

[3] Institute for National Strategic Studies, "Beyond Jointness: The Civil Military Dimensions of Peace Operations and Humanitarian Assistance," paper delivered at a conference held at Fort Lesley J. McNair (Washington: National Defense University, June 1999).

[4] Tom Dolan, Military Liaison Unit, Office of U.S. Foreign Disaster Assistance and DART Team Leader, Afghanistan 2001, personal interview, April 12, 2002.

[5] Steve Catlin, Office of U.S. Foreign Disaster Assistance liaison to U.S. Central and U.S. Southern Commands, interview by the author, April 12, 2002.

[6] Eric D. Newsome, "Security Assistance: The Bridge Between Diplomacy and Use of Force," *U.S. Foreign Policy Agenda* (December 1999), p. 9.

Landing craft on
Red Beach,
Camp Pendleton.

Go West Young Man!

# Transportation Training and Readiness

By G A R Y C. H O W A R D

The advice of Horace Greeley in the 19th century—*Go west young man!*—applies today to the military. The Army has been transforming from forward basing to projecting power from the continental United States. The global war on terrorism has revalidated the need for lean and lethal forces that can be deployed quickly as well as put a premium on joint warfighting

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The level of readiness required to deploy combat power around the world on short notice depends on high-quality joint training that is costly and hard to find—particularly for transporters. Exercises such as Golden Cargo, Golden Mariner, Trans Mariner, and Translots are insufficient to provide the needed opportunities; nor do these exercises offer much in the way of joint training. Part of the solution may be reevaluating the state of current exercises.

Simulation

One novel solution to this readiness issue combines two programs which provide realistic
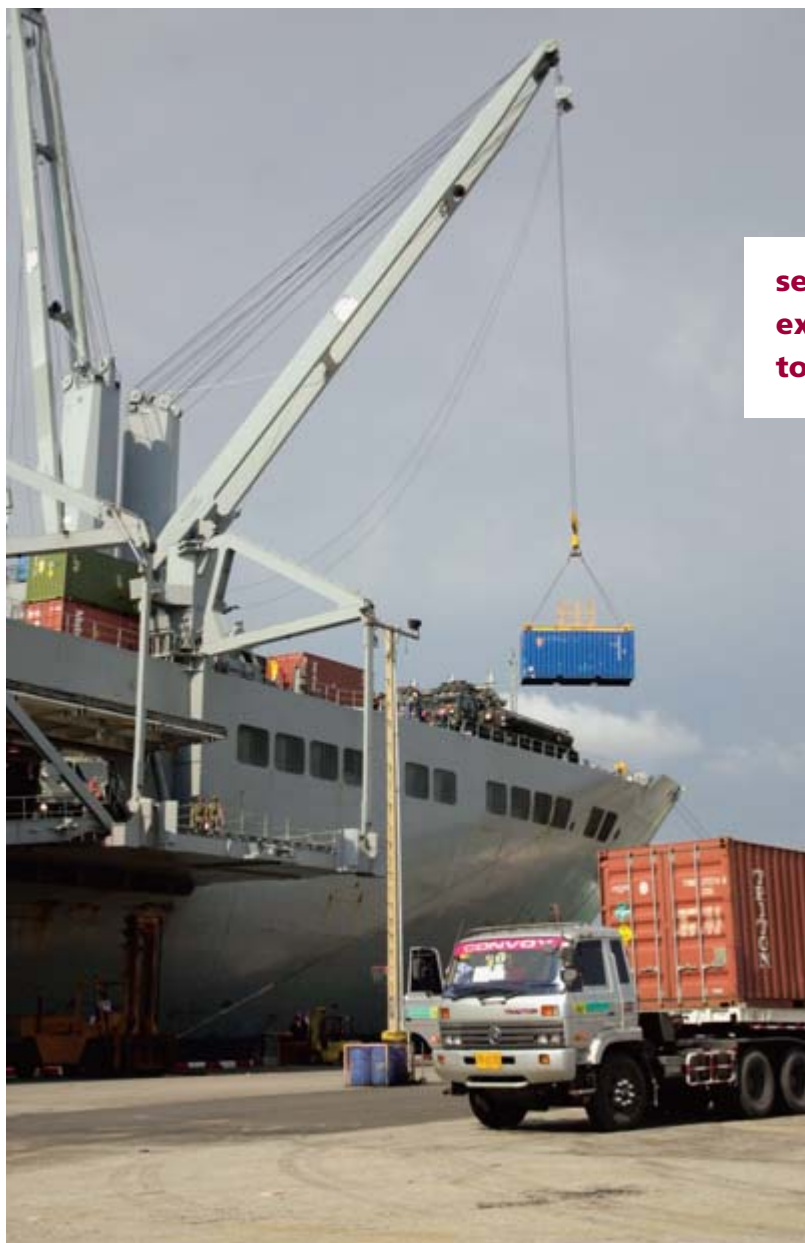
Unloading *USNS William W. Seay*, Cobra Gold '02.

U.S. Navy (Jennifer A. Smith)

The joint logistics over the shore (JLOTS) and download phases have provided an excellent simulation of reception, staging, onward movement, and integration for transportation and support units from active and Reserve components of the Army, Navy, and Coast Guard. The seaport of debarkation has been conducted as pier-side discharges at Port Hueneme and San Diego and as

seaport emergency deployment readiness exercises test the ability of specific ports to project the force

in-stream discharges and JLOTS operations at Camp Pendleton. The challenge of operating at routine sea states of 2 and 3 provides realistic and valuable training.

The most recent JLOTS operation was Native Atlas, which was sponsored by U.S. Central Command and conducted in March–April 2002. Some three thousand members of the Army, Navy, Marine Corps, and Coast Guard simulated a large-scale deployment by transporting equipment of 2^d Brigade, 3^d Infantry Division, across the beach at Camp Pendleton and onto piers in San Diego. *USNS Seay*, a large medium-speed roll-on/roll-off ship, was discharged at sea and the cargo was lifted onto *LCU 2000*-class Army Reserve vessels. Rolling stock was moved to the roll-on/roll-off discharge facility and Navy lighterage. Once on the beach, the cargo was staged and prepared for onward movement to the National Training Center. The exercise was under the overall direction of 143^d Transportation Command. Participating units from the Army included a Reserve composite group, an active terminal battalion, an active motor transport battalion, a Reserve movement control battalion, a Reserve heavy boat company, port manager units, Reserve and active truck companies, and various movement control, harbormaster, and cargo documentation units. In addition, several support units were required.

The operation also involved simulated fuel delivery. Some two million gallons of water in place of petroleum, oil, and lubricants was moved over the beach from *SS Mount Washington*, an offshore petroleum discharge system tanker from the Maritime Administration Reserve fleet that was located a few miles offshore. This joint feature of the operation involved the Marine Corps assault bulk system, Navy amphibious assault bulk fuel system, and Army inland petroleum distribution system.

training for both transporters and combat forces. For some time, units have been rotated through the National Training Center (NTC) at Fort Irwin. Simultaneously, seaport emergency deployment readiness (SEDRE) exercises test the ability of specific ports to project the force.

Combining SEDREs with unit movements to the National Training Center has become an outstanding driver for training the active and Reserve components in deployment and transportation operations. The upload phase provides real-world joint training for CONUS-based transportation units while exercising power-projection ports.

C–130 landing at Fort Irwin, Millennium Challenge '02.

U.S. Army (Tom Bradbury)

Army camp for JLOTS exercise at Camp Pendleton.

U.S. Navy (Erin Alana Zocco)

This exercise and other JLOTS and discharge operations over the past few years provided outstanding joint training for active and Reserve soldiers and sailors. Importantly, these operations capitalized on available funding committed to bring combat units to the National Training Center.

Exercising Power-Projection Ports

Fielding the theater support vessel, a high-speed catamaran being tested by both the Army and Navy, will dramatically change transportation doctrine. Future JLOTS exercises may also alter significantly. Whatever the effect of the vessel on warfighting doctrine, there will continue to be a need for port readiness exercises.

However, the first step in reception, staging, onward movement, and integration is getting equipment out of the continental United States. Like offload operations, the upload phase presents opportunities for training in mission-essential tasks. At the installation level, a deployment support brigade would help deploying units prepare for movement. Cargo transfer companies would load and tie down equipment on rail cars

and truck trailers. Line-hauling a portion of the equipment to port facilities would provide training for motor transport battalion, truck company, trailer-transfer point, movement control, maintenance support, and other units. A transportation terminal brigade, port security company, and cargo documentation detachments would be used in the actual loading phase. With the addition of harbor defense units, Military Sealift Command, and perhaps a cargo handling battalion, mission-based training could be provided for a thousand or more personnel.

The SEDRE phase can also be an effective driver of transportation training. For example, 3d Infantry Division equipment for Native Atlas was uploaded in Savannah. The SEDRE program exercises the capability of a power-projection port to operate in a contingency deployment and has been conducted in Savannah, Charleston, Beaumont, and Jacksonville.

In the future, SEDREs are likely to include west coast power-projection ports in Oakland,

Reading Logistics

By DAVID A. SCHRADY

Four classic works on logistics have been reprinted in recent years under the imprint of the Naval War College Press. Although they share a common theme, none deals exclusively with logistics. Moreover, they are no less relevant today than when originally published. George Thorpe argued for establishing a joint staff in *Pure Logistics*. The logistic snowball documented in *U.S. Naval Logistics in the Second World War* by Duncan Ballantine is lamented in *Logistics in the National Defense* by Henry Eccles. And the case for expeditionary logistics is presented in *Beans, Bullets and Black Oil* by Worrall Carter. The books in this series are not intended only for logisticians; they should be read by every joint warfighter.

Pure Logistics: The Science of War Preparation is the earliest work and was described by the author as a scientific inquiry into the theory of logistics. Thorpe perceived warfare as strategy, tactics, or logistics and maintained that "strategy provides the scheme of utilizing our forces, and logistics provides the means thereof." He found that failing to accord a proper role to logistics or neglecting to develop strategy and tactics in concert with logistic capabilities had been disastrous in the past. What he noted in 1917 has been proven by subsequent experience.

Thorpe, a Marine officer, also cited the need for joint operations and common logistics. He further observed that "wargames and chart maneuvers are well enough as far as they go, but they do not provide the necessary logistical instruction."

A Naval Reservist during World War II, Ballantine spent the last two years of that conflict in the Office of the Chief of Naval Operations compiling an administrative record of naval logistics. Early in the war the President had directed that a project be established to chart the administrative

course of the effort for posterity. *U.S. Naval Logistics in the Second World War* was one result. Far from a tedious chronicle, Ballantine paints a tortured picture of the innumerable attempts by the Navy Department to organize itself to plan and conduct operational logistics.

Logistics is integral to command. As Joint Pub 4-0, *Doctrine for Logistic Support of Joint Operations,* indicates: "To exercise control at the strategic, operational, and tactical levels of war, commanders must also exercise control over logistics." Yet many officers either do not fathom or want to control logistics. As the Navy struggled with logistics in World War II, the Chief of Naval Operations, Admiral Ernest King, remarked: "I don't know what this logistics is that Marshall is always talking about, but I want some of it." For senior military leaders to admit in wartime that they know nothing about logistics is a frightening situation. It stems from failing to recognize that it is part of command. This must have contributed to many attempts to organize for logistics and, as Ballantine recognized, "the growing discrepancy between the forms of naval organization and the emerging character of the logistic task."

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Admiral Chester Nimitz did not establish a logistic element on the Pacific Ocean Area Joint Staff until September 1943. Moreover, the Navy did not produce an overall logistic plan until the end of September 1944. Another problem was that asset visibility was virtually nonexistent. The first inventory was completed at the end of 1944 and limited to the continental United States—there was none taken in theater. Not knowing what was on hand resulted in ordering more.

Although the Navy struggled with operational logistics, forces afloat were being supported by diligent and creative operators. Carter was one of those players in the Pacific. *Beans, Bullets, and Black Oil* deals with providing resources to sustain men, aircraft, and ships; but it is also about facilities, maintenance, and battle damage repair for those forces. It is an account of expeditionary logistics on a grand scale with maps, illustrations, and photographs.

Wargames conducted during the 1920s and 1930s at Newport and elsewhere indicated that because of geography in the Pacific, the outcome of a conflict would be determined by the ability to transport and sustain forces at great distances from home. The Navy commissioned studies of advanced bases in 1938. After the war began, large forward logistic sites were established ashore in the southwest Pacific. But as bases were being developed, it was apparent that they would soon be too far in the rear to support advancing forces optimally.

The concept of mobile sea bases that could move with the forces was developed at this point. Instead of logistic bases ashore, logistic support was assembled in ships of mobile service squadrons. There were vessels to transport fuel and ammunition, distill and store water, serve as barracks and hospitals, perform maintenance, et al. All they required was a secure lagoon or harbor. The original location of Service Squadron Ten under Admiral Carter was Majuro in the Marshall Islands, some 2,000 miles north of bases at Espiritu Santo and Nomeau. The squadron then moved 800 miles west to Eniwetok, 1,300 miles west to Ulithi, and another 1,000 miles west to Leyte, following and supporting the combat fleet. As Carter said, "The advantages of logistics afloat and near the fleet operating area had long been recognized by many naval commanders and no doubt by others who gave the matter analytical thought."

Carter brings logistics in the Pacific theater to life. It was sea-based logistics—responsive to the warfighters—and it minimized time away from combat for replenishment. It also maintained and repaired ships in theater and returned battle damaged vessels to service, thereby conserving the strength of the forward operating forces. The value of sturdy ships and a strong repair capability is strikingly demonstrated.

Logistics in the National Defense is based on the experiences of Admiral Eccles both during World War II and in the classroom at Newport. His book is focused on operational factors such as the logistic snowball and organizational issues, which are treated comprehensively.

A logistic snowball is a buildup of stocks far beyond need and results from various causes. Recalling *Industrial Dynamics* by Jay Forrester in 1961, the use of all the spares of a given item is interpreted on the unit level as underplanning, and the remedy is overplanning. If ten spares are used, the call goes out for a hundred replacements so the item will never again be out of stock. Planners at the next echelon record a tenfold increase in demand and move ten times more spares than required to the theater, having a snowball effect. Discipline and asset visibility are required to control the process. In Desert Storm, visibility was lost when items moved from supply channels to the transportation system. And without asset visibility and timely delivery, units assumed that their orders were misplaced and reordered. This resulted in a mountain of iron on the beach among other problems. Since then attention has been given to attaining asset visibility, including in-transit visibility, and the concept of focused logistics, all aimed at reducing the logistic footprint ashore.

These books are classics and good reading. They contain important lessons about logistics in war and the exercise of command. The Naval War College is to be commended for making them available again. Making new mistakes may be unavoidable, but repeating old ones should not be tolerated under any circumstances. **JFQ**

Army National Guard artillery, National Training Center.

U.S. Army (John J. Murphy)

Army train leaving Fort Eustis, Native Atlas.

CIV TASC (Charlie Aston)

San Diego, Long Beach, Port Hueneme, and Seattle. These ports complement east and gulf coast ports, each with world-class facilities that are considerably closer to two major theaters. All offer protected transport within the United States and avoid use of the highly vulnerable Panama Canal. The west coast is not susceptible to hurricanes, which recently shut down infrastructure supporting the port of Charleston for several weeks. Careful analysis clearly documented that the cost of port exercises in Oakland is comparable to those on the east coast.

The well-established training model that combines SEDRES and NTC rotations can easily be applied to a SEDRE on the west coast. Units at Fort Carson regularly move for training. For example, 3d Armored Cavalry Regiment is scheduled to rotate in July/August 2003 and 4th Infantry Division in October/November 2003. Their equipment could be transported by rail or truck from Oakland for upload onto a fast sealift ship or a large medium speed roll-on/roll-off ship and for in-stream JLOTS discharge at Camp Pendleton or a pier-side discharge in San Diego.

Alternatively, 2/3d Armored Cavalry Regiment is scheduled to rotate to the Joint Readiness Training Center at Fort Polk in October 2003. In a reversal of what has become the model of east coast upload and west coast offload, their equipment could be uploaded in Oakland and offloaded in a pier-side offload in Beaumont or by a JLOTS operation at Eglin Air Force Base. In any of these scenarios, the SEDRE at Oakland would provide outstanding training for a large number of active and Reserve personnel while exercising an important power-projection port.

Combining SEDREs with NTC rotations greatly enhances training for both warfighters and support organizations while maximizing training dollars. This concept can be expanded to provide similar high-quality joint training to various combat and combat service support units of the active and Reserve components on the power projection half of the equation. More importantly, it offers a model for how training dollars can be leveraged. We must continue to enhance readiness, particularly by capitalizing on existing facilities and training in a cost-effective manner. **JFQ**

Palestinian arguing with Israeli soldier, Hebron.

AP/ Wide World Photo (Nasser Shiyoukhi)

Israel's Strategy for Combating Palestinian Terror

By JACOB AMIDROR

Many observers think that Israel does not have a clear and coherent strategy in confronting the Palestinians who are attempting to force their demands on Israel by violence, especially against civilians. It seems that Israel Defense Forces (IDF) are caught in a Sisyphusian dilemma whereby defensive operations are conducted to reduce terrorism. Although this mission is critical, it does not

provide direction for a conflict that the IDF Chief of Staff, Lieutenant General Moshe Yaalon, refers to as the most important since the War of Independence. Moreover, fighting terror has become more complicated after human bombers became major instruments. Nonetheless, it is the priority of every soldier and commander, and critical to achieving strategic goals.

Origins of Strategy

No document articulates the current strategy, partly because Israel does not have a tradition of producing them. Drafting such strategy is complicated by the omnipresence of the international

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Prime Minister Sharon (right) with his foreign minister.

media, under whose gaze the success and failure of technical and operational practices are revealed. This exposure impacts on strategic planning and decisionmaking. Plans require time to implement. During the Grapes of Wrath campaign in 1996, the mistaken firing of some artillery salvos, which killed 100 Lebanese civilians, forced an end to the operations before they achieved all strategic goals. When the goals are made abundantly clear, commanders on all levels are less likely to make errors that harm strategic aims.

While Israel was still negotiating with the Palestinians, who were engaging in premeditated violence, the goals were less clear—some might say confused. But since the first government of Ariel Sharon was formed, policy statements and actions appear to present a more coherent strategy. Theoretically, it would be preferable if strategy was defined from the top down, complete in every detail. But it evolves gradually through a process of trial and error, a less orderly approach but one that often reflects political and diplomatic realities.

the unilateral IDF withdrawal from Lebanon in 2000 was the straw that broke the camel's back

Palestinians, in a gambit seen by most parties as illogical, initiated waves of violence rather than diplomatic counteroffers. Prime Minister Ehud Barak offered far more than any Israeli leader to date, including over 95 percent of Judah and Samaria, 100 percent of Gaza, sovereignty over parts of East Jerusalem, and the ingredients of autonomy as an independent state. Although it was legitimate for the Palestinians not to accept the deal, there were certainly grounds for continuing to negotiate. It is also clear that Barak was ready to talk, as indicated by his agreement to a meeting in Taba, although by then the Palestinian Council President, Yasser Arafat, had launched the war of terror. Moreover, as the Taba process revealed, Barak was ready for more concessions. But Arafat was not satisfied and unleashed the torrent of violence which he had publicly foresworn years before.

The Palestinian leader chose violence over negotiations because he could not give up certain demands, either because it is writ permanently into his character as the *raison d'être* for the Palestinian struggle or because he might destabilize his own position by upsetting various factions. The Israeli misunderstanding stems from a belief that since Arafat had an independent state within his grasp, he would make concessions. But instead he decided to wage war when it became clear that, while Israel was yielding, the Palestinian side would not get everything it demanded. Now it seems obvious that Arafat truly thought the Israelis would collapse under a wave of continuous terror and would make concessions that they were not ready to make in peacetime negotiations.

Arafat believed that violence would achieve more after Camp David. His assessment that Israel could be pressured into greater concessions was shared not only by Palestinians but others in the Arab world. This perspective arose because Israel did not react during the Persian Gulf War, went to Madrid against its will to avoid friction with the United States, made concessions at Oslo in 1993, and crossed lines that were interpreted as a retreat from its basic principles. Furthermore, because Israel turned over Hebron after the Tunnel Riots and did not end talks even when promises were broken on the first day, there was a perception that Israel was war-weary and desperate. Finally, the unilateral IDF withdrawal from Lebanon in 2000 was the straw that broke the camel's back, furthering the view that Israel could no longer stomach casualties.

There are five elements in Israeli strategy: altering perceptions among Arabs (particularly Palestinians), negotiating with responsible Palestinians to achieve a mutually beneficial agreement, reasserting the ultimate responsibility of the state to protect its citizens, destroying terror by force, and engendering international support.

The Arab Mindset

The result of the war on terrorism must change the outlook of Arab nations, and especially among Palestinians. Israel must regain credibility to make it clear that retreats or concessions will not be made while under fire, and that force—military or terrorist—will never change its

Palestinian militia rallying in Gaza.

AP / Wide World Photo (Adel Hana)

Chairman Arafat.

AP / Wide World Photo (Muhammed Muheisen)

position. Israelis are ready to negotiate, but neither threats nor violence will evoke concessions.

Three conditions are vital to achieving this goal. The first is steadfastness. Israelis can handle tough situations, and the present times are extremely difficult. One of the greatest mistakes the Palestinians made is failing to fathom democracy and how Israel would respond if backed into a corner. Those who criticize Barak as a negotiator tend to forget his critical contribution. When Palestinian ambitions were seen in the light of day, Israel discovered that they contained almost no flexibility. Accordingly Israelis are united in a war that they view as imposed on them. Without having gone the extra mile for peace, only to be answered by terror, the people of Israel would not be ready to make sacrifices.

The second condition is that Israel must not be pressured to give up anything that could be interpreted as capitulating to terrorism. Unfortunately, any concession would seem to be a success for the terrorists and hinder the ultimate goal of two states existing in harmony. From this point of view, the danger of the road map proposed by the United States is an assumption that even if Israel does not give in to violence, America will and will pressure Israel to do the same. Even more troubling is ignoring the condition set by George Bush on the Palestinians in June 2002—a continuous and determined war on terrorism. Washington can make the difference. It must be unequivocal in refusing to accommodate terror as the President emphasized.

The last condition is determination by the national leadership to make no concessions while under fire. To evacuate settlements or retreat unilaterally while violence continues could be seen as total capitulation to terrorism and only engender further incidents.

These three conditions are vital from the strategic point of view, and not just because they are linked to ideology or negotiations with the Palestinians. If Israel wants to achieve the first and most important part of its strategy—reshaping the Arab mindset on Israeli steadfastness—it must convince Arab leaders that it will not collapse, give up, or make concessions when terror is used. Terrorism must be seen as an illegitimate tool that achieves nothing for those who appeal to it. And there are emerging signs of change in Palestinian society. Its leaders are saying in private that terror must be stopped for the benefit of their cause. Time is needed to allow moderate heads to prevail, but concessions merely inspire radicals to violence.

The second element of the strategy concerns the post-war situation. Israel wants to negotiate with responsible Palestinians and sign a mutually beneficial agreement. To achieve this, Prime Minister Ariel Sharon says his country is ready to make "painful concessions." But from the Israeli point of view, the current Palestinian leadership is incapable of being a partner for negotiations because they believe they can successfully wage war rather than attempting to wage peace. Israel must wait for a leadership that fights terror. The Palestinians need "leaders [who] engage in a sustained fight against the terrorists and dismantle their infrastructure," as President Bush stated in June 2002.

there is no interest in seeing Palestinian society disintegrate because Israel must eventually negotiate and live with it

Israel must not only conduct a war against terrorism, but change the Palestinian leadership. Such action must be initiated carefully while taking into account four select groups. The first is the international community, particularly Americans, but also Europeans, who are no less significant. The goal is the creation of a situation in which Arafat and people around him lose their legitimacy, which was gained mainly after Oslo. The second group includes Arab leaders—most importantly in Egypt, and the so-called Arab street, especially in Jordan—who are allied with Arafat, although many are coming to realize that he must be replaced. The third is the Israeli public, many of whom after Oslo accepted Arafat as a leader who deserved trust. Although the recent terror campaign has changed their views dramatically, some are not convinced that Israel should wait for an alternative. The fourth group is the Palestinian people who accepted Arafat not only as a revolutionary leader and head of the Palestinian Authority, but also as a symbol. More importantly, Palestinians regard victory differently from Israelis or those in West. They measure success not by achieving

Madrid and Oslo

The United States and Soviet Union cosponsored the Madrid Peace Conference in October 1991 to help initiate a settlement of the Middle East conflict. The conference was attended by Israel, Syria, Lebanon, and Jordan, including the Palestinian Liberation Organization. The Oslo Peace Process was begun in September 1993 by Israel and the Palestinians. A declaration of principles outlined in a letter from Chairman Arafat committed his movement to the right of the State of Israel to exist, accepted U.N. Security Council resolutions 242 and 338, and renounced the use of terrorism and other acts of violence. In response, Israel recognized the Palestinian Liberation Organization as the representative of the Palestinian people and agreed to negotiate with it. [For details, see the Search for Peace Historical Documents Section, U.S. Embassy to Israel, at http://www.usembassy-israel.org.il/publish/peace/peaindex.htm.]

positive results for their people, but rather by the amount of suffering inflicted on their enemies. It is not at all clear to many Palestinians that they are losing the war. Israel must make this reality apparent. Only then will a change in leadership become more likely.

There is no interest in seeing Palestinian society disintegrate because Israel must eventually negotiate and live with it. The war, therefore, must be conducted with a continuous aim to not destroy the civilian infrastructure, economy, or administrative apparatus. It is important to attempt to limit damage to terrorist networks and producers of violence. Of course, while this goal is intellectually clear, it is difficult if not impossible to entirely implement.

A Responsible Partner

Israel must have a legitimate negotiating partner with four qualities. The Palestinians must fight terrorism regardless of its source—Islamic groups, the Fatah party, et al. Israel can negotiate only with a partner who decides that terrorism is not an option. There is no need for declarations; leaders are judged by their acts. Second, Palestinians must work to change public discourse on Israel. The inflammatory language used by their media must end. Similarly, the image of Israel in textbooks

Stringing wire in Bethlehem.

must be adjusted. Next, a new leadership must move toward accountability, away from corruption, and build a civil society that in the long run will be democratic. Finally, Palestinians should renounce the desire for a massive return of refugees, acknowledge the right of Jews to their own sovereign state within agreed borders, and accept an agreement as the end of conflict, thereby foreswearing any future claims. Without these prerequisites every negotiation is doomed. In their absence it is better not to begin negotiating with the Palestinians at all.

Israel must consider a number of negotiating points. It cannot neglect its historical roots in disputed areas. Jews have lived in Hebron longer than Tel Aviv. Another point is demography. There will soon be more Arabs than Jews between the Jordan River and Mediterranean, yet Israel has an interest in retaining the Jewish majority and identity of this area. Next is security. Israel must be able to defend itself in war and against terror. Such threats require Palestinians to accept certain constraints on their state. Although some measures may not be easy to accept, others may

have merit. With limited military capabilities, for example, they may not have to levy heavy taxes. And finally, Israel must maintain liberal democratic values because they are important to its citizens and because they are the basis for international support.

At the end of the day Israel will have to negotiate with the Palestinians, for the solution of the conflict is political, not military. But from an Israeli point of view, it would be better to come to the table with as many advantages as possible, and only after defeating terrorism so that it cannot be considered a negotiating tactic.

Self Defense

Another element of strategy involves a new definition of a principle that has been accepted since Israel was founded: the state is ultimately responsible for defending its citizens by whatever means necessary. Although this principle may seem obvious, Israel effectively abandoned it after signing the agreement with the Palestinians at

**Room-to-room search
in Ramallah.**

AP / Wide World Photo (Jerome Delay)

Oslo in 1993. It is not an easy decision to reverse, and many nations do not approve of efforts to do so. With regard to fulfilling this responsibility at present, there are key operational and tactical objectives. For example, Israel Defense Forces reoccupied areas in Judah and Samaria from which terrorists launched the murder of Israeli citizens. This was the logic behind Operation Defensive Shield, begun in April 2002, after the Passover massacre in Netanya. It symbolized a change in outlook. And on this basis, Israeli troops have gone into the Gaza Strip when militarily necessary, and special forces are doing everything possible to arrest and hit terrorists operating inside Palestinian-populated areas.

Reasserting this principle is not easy. Many Israelis had expected Arafat to honor his part of the bargain and fight terrorism. Also, some in the international community anticipated that Israel would not operate in newly administered Palestinian areas, constraining military action regardless of the provocation.

War in the future will depend on the way Israel fulfills the principle of protecting its citizenry. Decisionmakers who understand the seriousness of self-protection must stand ready to act even if, for example, the only way to prevent terror is to reoccupy either the city of Gaza or the huge refugee camps in the Gaza Strip. It is clear that no

possibility, however unpalatable, can be excluded. It must be recognized that Israel will always react to a threat and evaluate the best way to deal with it. Israel accepts the concept of preemption—that it is legitimate to strike at terror before it occurs. Now that the United States is defending preemptive action, Israel has no reason to discard this option. The responsibility to defend one's citizens, which for Israel combines self-defense with eliminating threats before they emerge, characterizes the strategic concept. Moreover, it influences day-to-day operations and tactics.

Destroying Terrorism

The fourth element is that the terrorists must be met by force. Because terrorism cannot be completely prevented, terrorists and their supporters must be defeated. Bringing them to justice is often impossible, so justice must be brought to them. For Israel this means killing them—not as punishment or revenge, but to prevent future terrorism.

Preemption was something of an anomaly in the liberal world order at the dawn of the 21st century, but it has become more acceptable since 9/11. It places a heavy burden on the military and intelligence communities. It is clear that the

capability of Israeli society to conduct wars in the long run is connected to success in fighting terrorism, even if victory is not total. And the steadfastness of Israeli leaders against pressure to give in to terrorism is becoming stronger with each success. At the same time, Palestinian leaders are finding it harder to justify their policies to the public given continuing terrorist failures and mounting costs. For the Palestinians, fighting terror could be the first step in abandoning terror as a tactic. Israel must make Palestinian violence a failure practically to make it a failure politically. This will take time, but it is the best approach.

The mandate that flows from combining the third and fourth elements of strategy—defense of citizens and destruction of terrorist capabilities—is fighting to the end. Success means control on the ground to provide intelligence and eliminate terrorist infrastructure, including recruitment, production of explosives, and sanctuaries. Control is necessary to arrest suspects for interrogation because terrorism cannot be countered without questioning its supporters. Along with preventing local authorities and the population from helping terrorists, these concerns brought Israel Defense Forces back to Jenin and Nablus. Experience teaches that there is no way to fight terrorists short of controlling both the areas in which they operate and those from which they operate.

for the Palestinians, fighting terror could be the first step in abandoning terror as a tactic

International Support

A small country like Israel needs as much international support as possible without risking its vital interests. This course is problematic because it imposes constraints on freedom of action. Even the United States prefers to wait for support from the international community before taking action, such as in the war against Iraq. The Israeli people must appreciate this diplomatic need.

Israel must strive for understanding, if not approval. It will be difficult to implement the necessary actions in the long run. But it is better to have broad support around the world, including Europe, since Israeli legitimacy is simultaneously seen as Palestinian illegitimacy. From the perspective of Arafat, international support, specifically European, is vital in the struggle against Israel. Denial of such legitimacy would place heavy stress on him.

Accordingly, Israel must gain international legitimacy to relieve pressure on itself and exert pressure on the Palestinians. This requires a delicate balance. Israel must fight under conditions in which terrorists come from populated areas and target civilians. This has led to adopting tactics that are not favored by countries which do not face similar challenges. It is not surprising that it is easier for Israel to explain itself to Americans after 9/11 than to Europeans. Both the United States and Israel are often on the same side of the table, which explains the need to act forcefully against terrorism.

Israel must fight in densely populated areas and the terrorists often use civilians as shields. Thus it is sometimes impossible to strike without risks to innocent people. But to not hit populated areas means to not combat terrorism, and it cannot be done in every operation. While the need for international legitimacy is great, and Israel exposes its soldiers to danger to prevent harm to Palestinian civilians, the war against terrorism cannot stop. Accordingly, Israel seems doomed to continuous friction with world opinion to some degree.

Israel must emphasize the first strategic element. This war must bring about change in the minds of Arab leaders who thought the Israeli people could be brought to their knees by terrorism. Those who understand this fact know that the war against terrorism is only one part of a strategy. It is likely that if Arafat had appreciated that these principles would be implemented before initiating the war, he would have continued to negotiate.

Terrorism can only be defeated by the use of force, and it is the responsibility of Israel to defend its citizenry until the Palestinians select a leadership with whom it can seriously negotiate. A clear articulation of strategic goals not only can influence an enemy but can clarify the goals and reduce distractions for operational forces.

This strategy fits the current Israeli government. But a future government, like that of any democracy, could introduce a new vision. If some leader decided, for example, to negotiate under fire, retreat from Judah and Samaria, or annex Judah and Samaria, Israel would have to formulate a strategy that used force in a way which was consistent with its political goals. **JFQ**
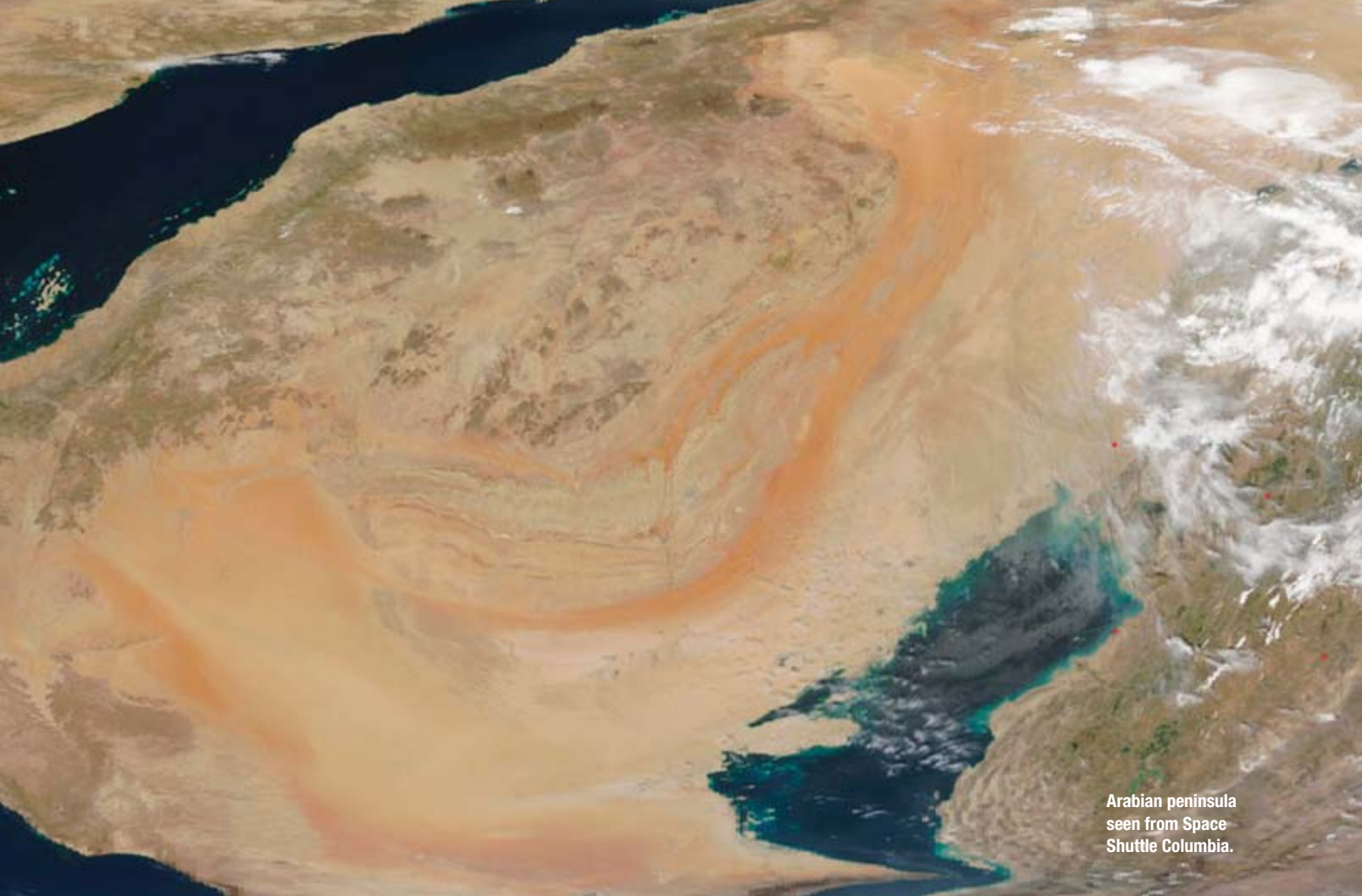
Arabian peninsula seen from Space Shuttle Columbia.

Underpinning Saudi National Security Strategy

By NAEF BIN AHMED AL-SAUD

Though nations can't choose their location, they can determine how to deal with geographic realities. Surrounded by states with great ambitions, the Kingdom of Saudi Arabia is as large as the United States east of the Mississippi and has vast wealth for a relatively small population. Not only does it have huge oil reserves; its extensive coastlines on both the Red Sea and Persian Gulf overlook nearby vital sealanes. It also has long borders with neighbors. Despite its size, most oil fields as well as many ports and urban centers are close to other local powers. Saudi Arabia must weigh the implications of its geostrategic location and international politics as various states pursue dominance in the area. This applies not only to the Red Sea and Persian Gulf, but also to the Horn of Africa, another area suffering from chronic instability.

As population growth changes demographic trends around the world, manpower shortages in Saudi Arabia are significant over the near term compared to some of its neighbors. Thus Riyadh

His Royal Highness Prince Naef bin Ahmed Al-Saud is a colonel in the Saudi Armed Forces with responsibilities for strategic planning.

has found it prudent to modernize its military and acquire advanced weapons. But future increases in population require allocating considerable resources to meet domestic needs such as education, housing, and medical services.

Saudi security policy, like that of other countries, must protect territorial integrity, economic wellbeing, cultural values, fundamental beliefs, and the system of government. The past two decades have demonstrated that sound policy must focus on regional security in a broad sense. The Saudi people must be ready to meet external threats to their country and the region. Change in other countries can also impact the stability of the area as a whole. Aggressive actors must be confronted by a military capability that can persuade and, if necessary, compel them to refrain from expansionist tendencies.

A look at the Persian Gulf in recent decades reveals threats emanating from two states, Iran and Iraq. The former tried to expand its influence under the Shah and occupied islands belonging to the United Arab Emirates in the early 1970s. The current regime established an Islamic republic in 1979 and continued to be a regional threat while introducing new ideological and political risks.

Saudi Arabia is an Islamic regime that considers the Koran its sole constitution

Iran did not refrain from publicizing its intention to spread instability in radical terms. It attempted in the 1980s to foment instability in the kingdom during the *Haj* and cause trouble among Shiites in Bahrain and Kuwait. Even if moderate forces prevail, Saudi Arabia must compete with Iran and its sophisticated arsenal.

The other danger to Saudi security is Iraq. While Iran posed a challenge under a banner of radical Islam, Iraq appealed to pan-Arabist sentiments for redistributing wealth and championing the Palestinian cause. But rather than sharing resources and engaging Israel over Palestine, the Iraqis invaded Kuwait. While the future is uncertain, Saudi policymakers must take into account not only the possibility that Saddam may retain power. The repercussions may be either a fragmented Iraq or the emergence of a new regime in Baghdad committed to redrawing its borders.

Finally, Saudi Arabia had to consider the stability of its southern borders. This issue dates back to the 1960s and earlier, when its policies clashed violently with Egypt over Yemen, leading to a border war. Later the Yemeni civil war created instability and produced a refugee problem.

One thrust of Saudi security policy in the 1980s and 1990s was modernizing air defenses to deter potential enemies. The decision to gain a qualitative edge to compensate for the demographic limitations and long borders was particularly significant. Modernization enabled the Saudi military to fight effectively against first-line Iraqi forces in Desert Storm, and the force has become strong enough to deal with low-intensity threats and reduce the number of American reinforcements that would be needed for mid-intensity contingencies. Such improvements do not eliminate the requirements for U.S. assistance, but they have made effective Saudi military action possible until it arrives.

Saudi Arabian forces fielded 50,000 soldiers, 270 main battle tanks, 930 armored vehicles, 115 artillery pieces, and 400 antitank weapon in the Persian Gulf War. The air force launched 6,852 sorties in January and February 1991, second only to the United States. Given the location of resources near its borders, Riyadh deployed forces to defend its oil fields. The estimated cost of modernization was $290 billion from the mid-1980s to mid-1990s.

Although Iraq was a counterbalance to Iran in the 1980s, it represented a threat to regional stability with its determination to forcibly annex Kuwait. When regional and international efforts at mediation failed, Saudi Arabia became the launching pad for coalition forces to evict Iraq.

Identity

Cultural factors are crucial to shaping Saudi security. Any prudent policy must encompass the historical, political, social, and economic features of the country, particularly to gain legitimacy among its people. Ignoring this dimension would be a reckless invitation for instability.

It is important to appreciate that Saudi Arabia is identified with the teaching of the reformist Wahhabi Da'wa, the first revivalist movement in Sunni history. Saudi Arabia is an Islamic regime that considers the Koran its sole constitution. The identity of the state is tied to Islam and the King is identified as the custodian of the Two Holy Places. Thus the legitimacy of the regime is linked to Islam. Saudi Arabia, in that sense, is not just another Muslim state, but one with responsibilities for safeguarding Islam. Security, like other policies, cannot deviate from these obligations.

Many in the West may not comprehend that the rulers in Saudi Arabia have to take public opinion into account or lose credibility. For example, as Prince Bandar, the Saudi ambassador to the United States, has noted, King Fahd was keen on having refugee families from Kuwait spread through cities in his country so Saudi society would see the need for a national effort to reverse the occupation of Kuwait and for collaboration with the United States to accomplish this task.
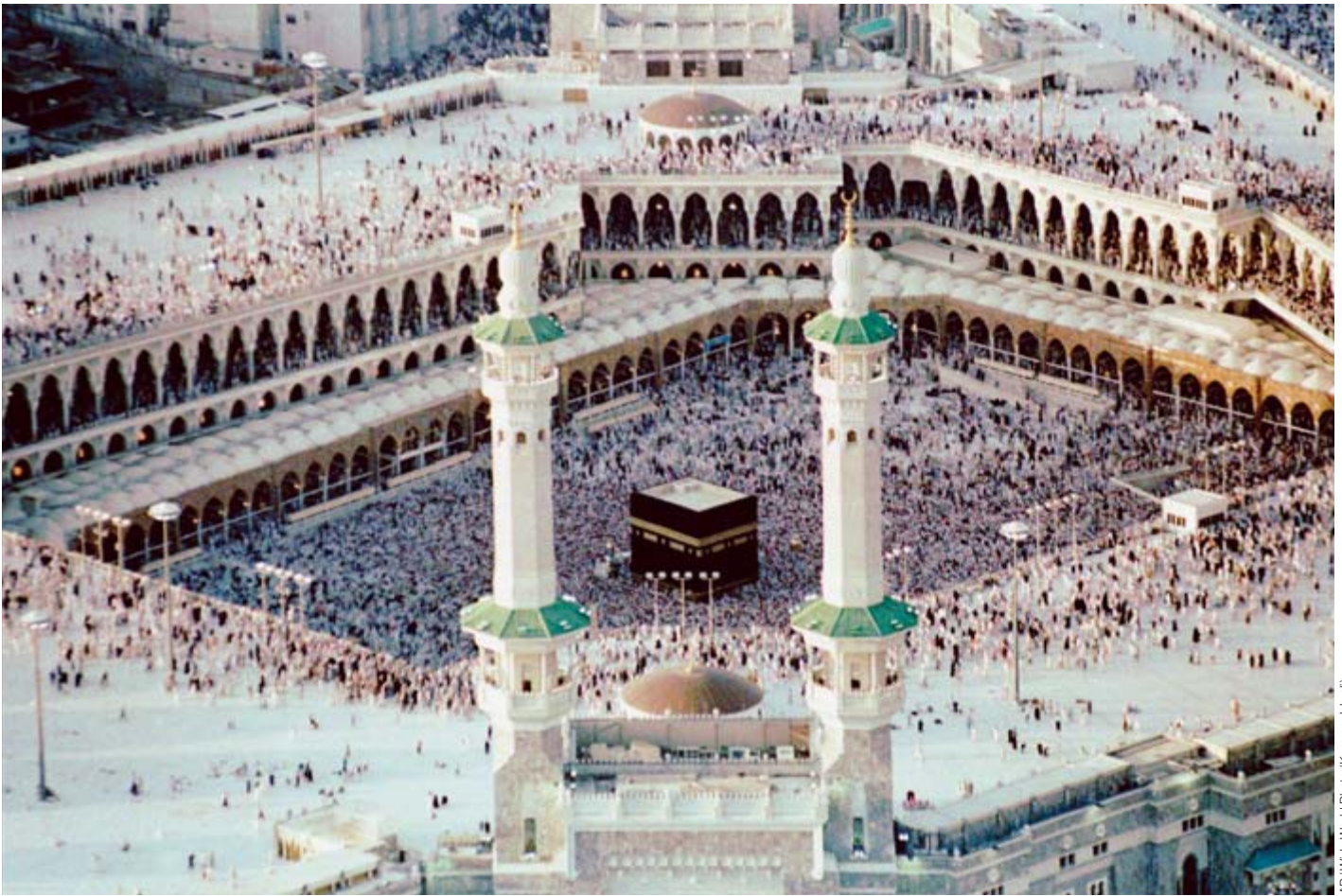
Grand Mosque and Kabaa in Mecca.

By allowing foreign troops to be stationed in Saudi Arabia to confront Iraq, policymakers realized the need to consult with religious leaders. Senior *'ulama* (religious authorities) concluded that the *shari'a* (Islamic law) authorized the ruler to seek the assistance of whoever had the power to resist aggression and defend Muslim lands. In September 1990, a meeting of the Muslim World League in Mecca supported the invitation of non-Muslim forces, but added that they should leave the region once the causes for their presence were removed.

The Economic Dimension

Saudi Arabian security is influenced by a geostrategic and economic significance on both the regional and global levels. It is projected that oil production, currently at 8 million barrels per day, will increase to 14 million barrels in 2010. The economic importance of the country is likely to increase correspondingly. According to a U.S. Department of Energy assessment, Saudi Arabia has over a quarter of proven oil reserves. This will compare by 2010 with an estimated 11 percent

for Iraq, 9.6 percent for the United Arab Emirates, 9.2 percent for Kuwait, 8.6 percent for Iran, 13 percent for the balance of the Organization of Petroleum Exporting Countries (OPEC), and 22.6 percent for the rest of the world. Saudi Aramco estimates that the kingdom will have 261.7 billion barrels of reserves by 2010 compared to 112.5 for Iraq, 97.8 for the United Arab Emirates, 96.5 for Kuwait, 89.7 for Iran, 76.9 for Venezuela, 48.6 for Russia, and 29.7 for the United States. Not only does Saudi Arabia have more than 80 years of reserves at the current rate of production; its oil amounts to ten times that of the United States, five times that of Russia, and sixteen times that of the Caspian Sea and Central Asia. Some believe these figures underestimate the oil significance of the kingdom.

Worldwide, two-thirds of proven oil reserves and one-third of the natural gas are found in the Persian Gulf. That means the advanced industrial countries will continue to rely on the energy

Saudi soldiers passing in review.

Coalition compound at Prince Sultan air base.

sources of the region, and the stability of that region will continue to be of great importance to the economies of industrialized states. As an influential OPEC member, Saudi Arabia will continue to play a major role in maintaining moderate and stable prices. This is crucial because of its capacity to increase or decrease production on short notice and thus influence world markets and prices.

Saudi government expenditures have been directed at modernizing the military, improving economic growth, and providing a safety net to ameliorate social conflicts. Performing these tasks in the face of reduced oil prices has resulted in a complex balancing act. On one hand, because of ambitious neighbors, Saudi Arabia could not allow defense preparedness to lag. On the other,

domestic stability had to be preserved, particularly at a time of declining oil revenues in comparison to the 1970s and 1980s. Funding was allocated to both security and domestic concerns.

The fiscal aspects of defense policy have security implications for Saudi-American relations. In 1973 defense expenditures were $2.8 billion a year. By 1980 they reached $20 billion. According to one estimate, Riyadh has spent $290 billion in constant 1993 dollars over the past two decades. Between 1991 and 2001, it took delivery of $66 billion in new weapons. In light of the constraints caused by a decline in oil prices and costs of the Gulf War, Saudi Arabia cannot maintain the level of spending seen during the first 15 years after the oil revolution. With oil revenues accounting for 90–95 percent of export earnings, military expenditures fell in the 1990s. All this led to extending Saudi payments to American defense firms. Arms transfers from the United States must balance legitimate defense needs with the fiscal imperatives created by the oil market in the future.

Since the defense modernization of the 1970s and 1980s, calls for rationalizing all types of expenditure, including military outlays, have resonated in Saudi society through a policy of fiscal responsibility—*tarshid al-infaq al-'am*. The weakening of Iraq after the Gulf War and the promise of reform and moderation in Iran have contributed to a relative decline in threat perceptions and to public opinion favoring reduced military expenditures.

Alliance Politics

Against the backdrop of 9/11, it is important to examine the congruence and divergence in the thinking of Washington and Riyadh from a Saudi perspective.

The American role is central for understanding Saudi security policy not only in the present era but for the foreseeable future. For Riyadh, Washington will continue to be a predominant arms supplier and source of training. This raises complex issues about the terms of weapons transfers and costs and the impact of cultural differences. Saudi policymakers are keen to bring these issues to the attention of their counterparts. Although U.S. officials have been concerned over domestic groups interested in curbing the flow of arms to the kingdom, Saudi policymakers strove to share assessments of regional security threats, financial constraints imposed by the Gulf War and low oil prices, and cultural and political factors working against deploying U.S. troops from Saudi bases.

In this bilateral relationship, one finds the leverage of the stronger power and the influence of the regional power. For instance, Saudi policy helped overcome U.S. domestic opposition to arms transfers both by showing the likely harm of a negative decision on American interests and by demonstrating a willingness to reduce military dependency on Washington. In that context, Saudi Arabia has acquired sophisticated surface vessels from France in addition to advanced technology and information systems from Britain and Italy.

Riyadh was focused on regional threats during the Cold War and unprepared to acquiesce in matters that were not in its interest. While America reached agreements with Oman and Somalia, no accord was signed with Saudi Arabia. As one analyst stated, "U.S. efforts to arrive at a formal agreement with Saudi Arabia . . . have run into difficulties. This is because of Saudi reluctance to accept pre-positioned U.S. equipment . . . since these would really be tantamount to U.S. bases on Saudi soil." Even after the Cold War, Riyadh

> **both nations had a strong interest in containing an enemy that attempted to undermine the regional status quo**

was unwilling to accept a pre-positioning proposal for the same reasons that led it to reject earlier proposals.

On the other hand, there were many areas of congruence in the policies of the two nations, and not only in the oil domain. Cooperation on the security front has been especially significant. American advisors have been active in Saudi Arabia since 1952. In Desert Storm, both nations had a strong interest in containing an enemy that attempted to undermine the regional status quo. But despite shared objectives that led many to characterize their partnership as a special relationship, there remain differences reflecting respective commitments to protect national interests.

Some of those differences reflect domestic politics in the United States. Saudi attempts to procure advanced arms technology were met by resistance from pressure on Congress by the pro-Israel lobby, under the pretext that such hardware might be transferred to other countries or tip the military balance in the region. Riyadh made it known that it was ready to seek advanced weaponry from other sources rather than cave in to such pressure. According to Prince Bandar, his nation tried to learn how lobbyists operate in Washington, maintain good relations with both political parties, and be sensitive to the convergence of arms procurement and economic and social forces.

Three issues pertaining to Saudi security are relevant in shaping Saudi-American relations. The first concerns the American role. Intervention in the post-Cold War world is difficult to justify without an overriding threat. Public opinion in the West, including the United States, is influenced more by economics than projecting military power far from home with its potential for casualties, with the recent exception of Afghanistan.

Saudi defense planners understand this fact. They do not expect America to provide a fixed defense umbrella, but they are interested in achieving flexible cooperation via military assistance. This would include effective training programs to enable the kingdom and other members of the Gulf Cooperation Council to maintain security with minimal outside assistance. In the transition to that position, they are also interested in delineating the threats each partner may face.

A second issue is diversifying military procurement. Arms transfers are mainly influenced by shifting positions of governments that come under pressure from exporting countries. Multiple suppliers offer flexibility to overcome political pressure if weapons are denied or the terms of sale

The Kingdom of Saudi Arabia

Relevant History. Saudi Arabia is a union of two areas, Nejd and Hejaz. Nejd was an autonomous region in the 18th century ruled from Diriya—the stronghold of the Wahhabis—a puritanical sect. It then fell under the Turks, who were defeated by Abdulaziz Ibn Abdul Rahman Al-Saud in 1913. He also captured the Turkish province of al Hasa and the Asir in 1920, adding the Jebel Shammar territory of the Rashid family in the next year. Abdulaziz completed his conquest of Hejaz in 1925 and was recognized by the British as an independent ruler under the Treaty of Jeddah in 1927. The country was renamed the Kingdom of Saudi Arabia in 1932. Although exploitation began prior to World War II, oil was extensively developed with American help after 1945.

Land and People. The kingdom occupies nearly 80 percent of the Arabian peninsula. Riyadh is the political capital and Mecca is the religious center. The population was 16,948,388 according to the 1992 census and the United Nations projects 27.59 million by 2010. Approximately 76 percent of the population are Saudi nationals; the official language is Arabic.

Defense Establishment. Riyadh bought $6.1 billion in military equipment in 1999, mainly from the United States and Great Britain, making it the largest arms customer in the world. Defense outlays totaled $18.321 billion in 2000 ($848 per capita) or 10.1 percent of gross national product. There are 124,500 military personnel plus 75,000 members of the National Guard.

The army has 75,000 men in one airborne, three armored, and five mechanized brigades. Paramilitary formations include both the Frontier Force (with 10,500 members) and the National Guard. Major end items include 315 M–1A2 and 290 AMX–30 main battle tanks and 1,750 M–113 armored personnel carriers.

Naval forces operate four frigates and four corvettes. The naval air arm includes 21 armed helicopters, both afloat and on shore. Main bases are located at Jeddah in the Red Sea and Jubail in the Persian Gulf. Personnel total 15,500, including 3,000 marines.

The air force operates 432 combat aircraft (including F–15s, F–5Es, E–3As, and Tornado interceptors and strike aircraft) and numbers 18,000 personnel.

Formerly part of the army, the air defense force has various air defense systems (including 33 Hawk surface-to-air missile batteries) and is manned by 16,000 personnel.

The National Guard has 75,000 active members plus 20,000 tribal levies organized in three mechanized and five infantry brigades. Its primary role is protecting the Royal Family and vital facilities. It is directly under royal command.

Natural Resources. Proven oil reserves amounted to 261.7 billion barrels in 2000 (the highest of any country and 25 percent of world resources). Production was begun in 1938 by Aramco, which is wholly owned by the state and accounts for 99 percent of total crude production. Saudi Arabia is the largest producer with an output of 426 metric tons in 1999 which accounted for 12.4 percent of the world total oil output.

Production takes place in 14 major fields, mostly in the Eastern Province and offshore, and includes the Neutral Zone. The Ghawar oilfield between Riyadh and the Persian Gulf is the largest in the world, with estimated reserves of 70 billion barrels. Saudi Arabia is dependent on earnings from oil for 70 percent of revenues. Exports were $33 billion in 1998, rising to $41 billion in 1999 and $70 billion in 2000, then falling to $56 billion in 2001. Reserves are expected to run out in approximately 2082.

Natural gas reserves were 5,800 billion cubic meters in 2000; output was 46.2 billion cubic meters in 1999. The gas sector has been opened to foreign investment.

Regional Organization. The Gulf Cooperation Council is intended to ensure security and stability in the Persian/Arabian Gulf. Established in 1981, members include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. The council seeks to promote economic and political cooperation, fiscal policies, and self sufficiency in basic foodstuffs among member states. **JFQ**

Sources: The Statesman's Yearbook 2003 (New York: Palgrave Macmillan, 2002); and *The Military Balance, 2003–2003* (Oxford: Oxford University Press for the International Institute for Strategic Studies, October 2002).

become too restrictive. But diversification can also have negative effects on interoperability, spare parts, training, and the cost of individual items.

The third issue involves economic and fiscal concerns. Given the decline in oil revenues, Saudi policymakers seek to reduce spending without sacrificing preparedness. Furthermore, the Gulf War had a dramatic impact on resource allocation. Saudis spent an estimated $55 billion on that conflict, exacerbating the budget deficit. Such outlays, as well as fluctuations in oil prices, have led to fiscal constraints, extended payment schedules, and revised procurement programs. In short, the kingdom faces conflicting demands. Even though strategic realities justify high levels of spending, other factors call for difficult choices

APF Photo (Bilal Qabalan)

Gulf Cooperation Council meeting in Riyadh.

to limit growth in budgets. Balancing these factors is the main task affecting security policy.

Since national and regime security are increasingly influenced by economic success and the information revolution, Saudi Arabia must actively develop its economy and familiarize its citizens with digital technology. Advances in information and communication technology have done more than other factors to stimulate economic development and enhance defense capabilities. Similarly, promoting growth in the region may reduce unemployment as well as strengthen internal stability.

The importance of economic factors does not mean that Saudi Arabia must ignore the religious dimension of its educational system as some suggested after 9/11. One cannot deny that the militants are influenced by aspects of this system. The kingdom has called for a reassessment of education without sacrificing *al-'ilm wa al-iman*—faith and science combined. As Crown Prince Abd Allah bin Abd al Aziz Al Saud has noted, there must be a place within society for both faith and science.

Moreover, Saudi Arabia is committed to fighting terrorism and considers internal and external security as closely linked. Even prior to the attacks on the World Trade Center and the Pentagon, and before being accused of supporting terrorism, Saudi political and religious leaders denounced radical groups and their actions. Riyadh seeks to enhance its ability to both confront terrorism and the climate that supports it, including militant thinking that leads to political and religious agitation. Countering terrorism requires improved efforts by the Ministry of the Interior,

General Intelligence Directorate, and Security Forces. Moreover, Saudis understand the need for multilateralism.

Both Saudi Arabia and the United States must strengthen their security ties because they are clearly targeted in the global war on terrorism. Both nations also oppose WMD proliferation. It is ironic that building an alliance to combat terrorism in Afghanistan and beyond has brought the United States closer to the two sources of nuclear proliferation in South Asia—India and Pakistan. Meanwhile, turmoil in the Middle East could engender the sort of instability that may result in attempts to acquire WMD. Proliferation must be seen in terms of regional realities: the Israeli monopoly in nuclear weaponry, defiance by Pakistan and India of nonproliferation regimes, and reported efforts by both Iraq and Iran to develop nuclear capabilities.

Saudi Arabia does not accept the notion that a Pakistani bomb is an Islamic bomb. Instead, national interest is regarded as the most likely factor affecting how nuclear capabilities will be used. Nevertheless, regional competition increases concern among Saudis over the spread of weapons of mass destruction and ballistic missiles. Moreover, despite the lack of evidence that Riyadh may be pursuing a nuclear option, some speculate on the possibility.

Finally, an Arab-Israeli peace settlement is crucial for Middle East stability. Saudi Arabia is committed to finding a solution to this conflict. It sympathizes with the Palestinians and supports their right of self determination. The initiative launched by Crown Prince Saud was not, as some have argued, a public relations ploy to repair Saudi-American relations. It was a response to Saudi and Arab desires to resolve this situation. It was endorsed by the Arab League as an opportunity to end the conflict and focus on economic development and cooperation. Saudi Arabia can influence the Arab world by expressing its readiness for peace once Israel agrees to withdraw from occupied Arab territories, thus clearing the way for a Palestinian state. It is time to develop Saudi-American cooperation to meet these realities and ensure stability in the Middle East. **JFQ**
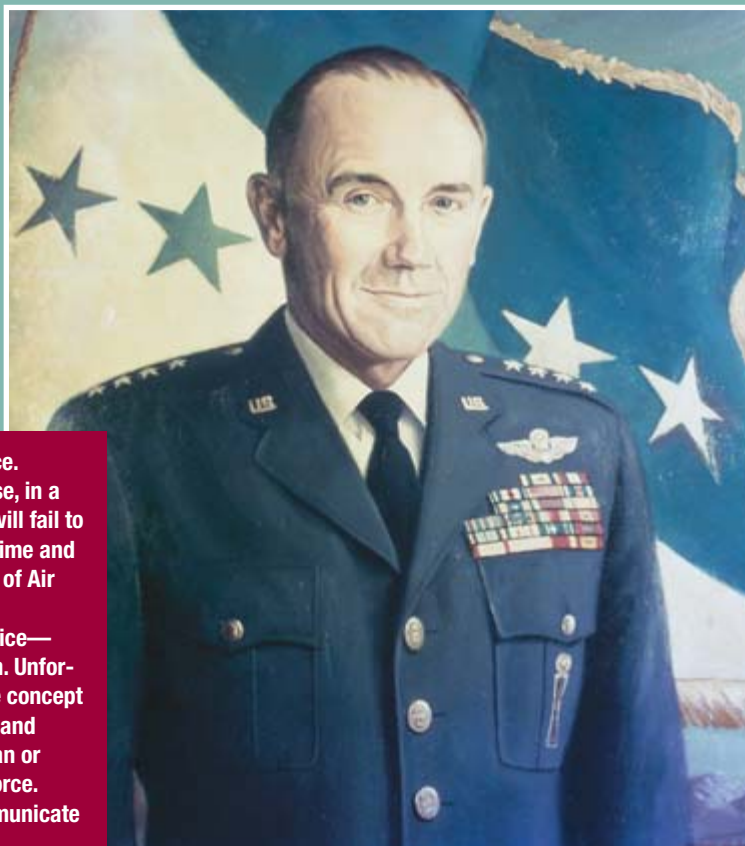
General John Dale Ryan

(1915–1983)

Chief of Staff, U.S. Air Force

VITA

Born in Cherokee, Iowa; graduated from U.S. Military Academy (1938); attended flying school, Randolph and Kelly Air Fields (1938–39); flight instructor, Kelly Air Field (1939–42); directed training, Midland Army Air Field; established advanced bombardier training school (1942–43); operations officer, Second Air Force, Colorado Springs (1943–44); commander, 2d Bombardment Group; served as operations officer, 15th Bombardment Wing, Fifteenth Air Force, Italy (1944–45); deputy base commander, Midland Army Air Field (1945); Air Training Command, Fort Worth and Randolph Field (1945–46); assigned to 58th Bombardment Wing and participated in Bikini Atoll atomic weapons tests (1946); assistant chief of staff for pilots, 58th Bombardment Wing; director of operations, Eighth Air Force; commander, 509th Bombardment Wing (1946–48); commander, 97th Bombardment Wing (1948–51); commander, 810th Air Division and 19th Air Division (1951–56); director of matériel, Strategic Air Command (1956–60); commander, Sixteenth Air Force, Spain (1960–61); commander, Second Air Force (1961–63); inspector general, U.S. Air Force (1963–64); vice commander and commander in chief, Strategic Air Command (1964–67); commander, Pacific Air Forces (1967–68); Vice Chief of Staff of U.S. Air Force (1968); named Chief of Staff (1968–73); died in San Antonio, Texas.

> I have no fear that young people will not join us in national service. I believe our young people *want* desperately to serve a good cause, in a productive and imaginative way. What is to be feared is that we will fail to cut through the misapprehensions and negative noise barrier in time and degree sufficient to reveal the true dedication and service values of Air Force life.
>
> People who have chosen the Air Force—or any military service—as a career know that the military occupation is a true profession. Unfortunately, too few people outside of our community know this. The concept of professionalism, clearly articulated, would help attract quality and stimulate eligible members of the civilian populace to seek civilian or military careers in both the active and reserve segments of the force. We need to reveal the ethics of our profession—we need to communicate what we are to the youth of the country.
>
> —From *Air Force Magazine* (May 1971).

Portrait by Woodi Ishmael.

Air Force Art Collection

REINVENTING THE ARSENAL OF DEMOCRACY

A Review Essay by
PETER J. DOMBROWSKI

I n the decade since the end of the Cold War numerous governmental agencies, blue ribbon panels, and study groups have lamented the state of the defense industrial base. Oft-cited problems include the spiraling cost of weapons systems, the lag time between design and production, and the inability to keep the military abreast of technological advances. Commercial firms have reportedly abandoned military sales because they cannot earn profits under existing government regulations. Globalization threatens to erode American leadership in weapons systems by fostering diffusion of technology and expertise across the world. Fast moving and innovative foreign competitors may even surpass the United States by deploying capabilities designed for asymmetric warfare. Some allege that consolidation has progressed to the point where the Nation is hostage to a few defense megafirms; they claim such companies are focused solely on

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Worker in Omaha.

their own profitability, shareholders, and management objectives at the expense of national security.

Sound defense industries should provide low cost, high quality, innovative weapons while making profits for shareholders in peace and war. Yet they rarely perform in this fashion, at least in peacetime when industry lobbying, pork barrelling, and bureaucratic infighting tend to dominate the acquisition process. The three books under review here will disabuse anyone of the notion that the post-Cold War era represents anything new under the sun for the defense industrial base. With few exceptions, problems in this sector have antecedents dating back to the Civil War.

The role of the defense industry is sometimes overlooked by defense analysts, and research on the base is usually left to specialists. Yet brilliant military leaders and superior weaponry have failed in the past when pitted against an enemy that effectively mobilizes its resources, including industrial capacity. The Confederacy outgeneraled the Union in the Civil War, at least until Grant entered the picture, yet lost the war as the superior industrial might of New England and the upper Midwest allowed the North to outstrip the South. Germany developed many sophisticated weapons during World War II from V–2 rockets to ME–262 jet fighters but could not build them quickly enough to alter the outcome of the conflict.

The capability to marshal national resources and mold them into military capabilities is important both in war and peace. In war, a defense industrial base

should allow the armed forces to mobilize, replace losses, and at times equip allies. In peacetime, defense industries should enable a country to prepare for war, surge during crises, and gain technological superiority over potential enemies.

Since the advent of the state system in Europe, the survival of a state has depended in large part on its ability to perform extraction—obtaining from its people the means to build the nation, make war, and protect itself. The books under review explore another form of extraction by considering the political economy of warfare—how economic, political, and military institutions are combined to formulate ways to mobilize resources for the national defense.

The term *political economy* suggests a specific facet of the American version of extraction. By most definitions it refers to interaction between states and markets. Efforts by a government to extract resources from society rely largely on market forces: buying from private firms to operate in more or less free markets. Since the start of the industrial age, the United States has used the private sector to produce weapons to win wars. Using free enterprise rather than direct control can result in superior productivity, innovation, and dynamism.

It is hard to envision naval shipbuilding without privately owned yards such as Newport News, Bath Iron Works, and Litton Avondale. But since George Washington decided to construct a fledgling Navy at government yards in 1794 until the 1880s, the Nation relied largely

on naval officers and government owned and operated shipyards to design and produce ships. This practice lingered until twenty years ago, when the last warships constructed at public yards were launched. Contractors built vessels mostly in time of war, and then only because government facilities could not meet the demand. But this historical discussion understates the importance of private shipyards from the middle of the 19th century onward.

The U.S. Navy and the Origins of the Military-Industrial Complex, 1847–1883 examines the reliance of one service on contractors as the precursors of the military-industrial complex. Kurt Hackemer, who teaches history at the University of South Dakota, traces this connection from the late 1840s when the Navy sought to use steam propulsion through launching an all-steel fleet. He shows that technology (the steam engine and steel hull) and wartime pressure forced the service to depend on the private sector to modernize. He finds that the "relationship with private contractors during the 1850s, 1860s, and 1870s and its efforts to integrate them into the ship-building process foreshadowed the military industrial complex that began taking shape during the construction of the steel Navy in the 1880s and 1990s." If that is the case, and the argument made by Hackemer is convincing, the claim by Friedberg that naval shipbuilding was dominated by the Government misses the point: "private enterprises began refining existing military technologies, often developed initially under official auspices, and introducing sophisticated variations that rivaled or surpassed the original versions."

Indeed, the Cramp shipyard of Philadelphia enhanced its reputation as the premier maker of modern ships in the naval program of 1890 with the construction of the battleships *USS Indiana* and *USS Massachusetts*, armored cruiser *USS New York*, and protected cruiser *USS Columbia*. Cramp-built vessels comprised three of the five capital ships that defeated the Spanish fleet in 1898 at Santiago de Cuba, an event that heralded America's emergence as a great power.

Descriptions of the halting attempts by the Government to develop and manage an emergent defense industrial base can be found on a grander scale at the beginning of the 21st century. Ills facing the current defense industries were

evident earlier. Implicitly, if not always explicitly, Hackemer points out:

■ the evolving contractual relationship between the military—here, the Navy—and private sector suppliers
■ the difficulty of adapting commercial technologies to the needs of the Armed Forces and vice versa
■ the optimal division of labor between Government and privately owned facilities
■ the motivations stimulating technological change (for example, external threat-driven motivations versus internal bureaucratic, organizational, political, or ideological motivations).

Even casual students of defense affairs recognize these issues. Recent efforts to streamline the defense acquisition process, for example, include reforms of contractual relationships between the government customer and private sector suppliers.

Despite the fact that it is foolhardy to generalize across decades, Hackemer reminds us that the Government and contractors engage in a cat-and-mouse game in which each action in the public sector provokes a countermove in the private sector. As the Navy developed model contracts for private shipyards in the mid-19th century, it had to constantly update the terms to account for shirking and new technology. Similarly, experts suggest that acquisition regulations should be reformed to cope with the information age.

Planning War, Pursuing Peace by Paul Koistinen, who is professor of history at California State University, Northridge, considers the interwar years. Like Hackemer, he looks at military interaction with the private sector, although he discusses a range of industries and official actors, including the War Department, congressional committees, and War Resources Board. His account is dominated by maneuvering in the executive branch and complex relations with commercial firms and industrial associations critical to mobilization: steel, aluminum, rubber, petroleum, and various minerals. The second half of the book examines investigations that sought to determine "the role of the War and Navy Departments in economic mobilization."

Underlying this concept is a sophisticated theoretical apparatus. Koistinen argues that four factors—economic, political, military, and technological—determine how America mobilizes. Put in simple terms, the maturity of the national economy, the size, strength, and scope of government, the nature of civil-military relations, and the relative development of state-of-the-art technology all shape wartime mobilization. By combining and recombining these factors as well as explaining the evolution of society, Koistinen cites three distinct phases of economic mobilization: preindustrial, transitional, and industrial. The preindustrial phase went from the Colonial era through the War of 1812; the transitional phase lasted to the close of the

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Civil War, while the industrial period ran from the mid-18th century presumably until the present.

This book is a tough read for all but the most committed specialist. One might expect some conclusions in return for revisiting the annals of obscure boards. But Koistinen offers generalities, some not supported by the text. He asserts, for example, that the scholar can "no longer look upon the Army's economic planning as an obscure aspect of administrative history." And there is little evidence for his claim that "the interwar years provided as much insight into World Wars I and II as those cataclysms reveal about the 1920s and 1930s." He does not explain how interwar plans improved the American effort during World War II.

The author's expertise does not rest on *Planning War, Pursuing Peace* alone: it is only the third in a planned five-volume series on the political economy of American warfare since Colonial times. The work at hand focuses on the years prior to World War II. Given his four-factor, three-stage framework, it will be interesting to learn whether his forthcoming volumes maintain that a fourth post-industrial age of economic mobilization is emerging with a new century.

In the Shadow of the Garrison State by Aaron Friedberg is more ambitious than the other two books. The author is professor of politics and international affairs and director of the research program in international security at Princeton University. Instead of limiting his study to military-industrial relations or bureaucratic schemes, he analyzes "the main mechanisms of power creation; those intended to extract money and manpower and those designed to direct national resources toward arms production, military research, and defense supporting industries."

Friedberg finds that an anti-statist strand in American political life prevented the excesses of militarized society that characterized regimes in the Soviet Union, Japan, and Germany. Faced by a tremendous Soviet threat—a geographically huge, resource blessed, ideologically committed state dedicated in rhetoric, if not always reality, to the destruction of Western society—the United States defended itself and its allies without becoming a modern-day Sparta.

The strong anti-statist strand in America thus allowed the Nation to prevail in the Cold War. When confronted by overwhelming conventional forces and the possibility of nuclear destruction, American leaders refused measures that

would have changed the fundamental character of society. They did not nationalize key industries or mobilize large parts of the population. The lion's share of basic research and development remained the responsibility of academe and quasi-private labs. In brief, society and the private sector in particular were insulated from the slide into a full-blown war economy, which might have usurped property rights and civil liberties.

The three books reviewed here remind us that the effort in a free market democracy to raise and equip the military causes tensions among defense requirements, the private sector, and liberal political traditions. These tensions animated the construction of a modern naval fleet in the second half of the 18th century, preparations for World War II, and the struggle against the Soviet Union. They underlie much of the current dissatisfaction with the defense sector. However, it is foolhardy to assume with the Nye committee that "the only way to avoid the consequences of modern warfare was to avoid war itself and the offensive preparation for it" because "the war/defense machine had the propensity to go beyond the control of its creators." As 9/11 demonstrated, war cannot always be avoided, and the military industrial complex, for all its faults and vulnerabilities, provides means to strike back against terrorism. Government officials and policy analysts alike must then prevent the "defense/war machine" from evolving in ways detrimental to national security.

In the Shadow of the Garrison State is especially relevant as the United States embarks on the war on terrorism. Congress passed the U.S. Patriot Act, which may bring the Nation closer to a garrison state, and elected officials and political pundits have proposed further initiatives, from reinstating the draft and imposing censorship to significantly increasing defense spending. From the military, intelligence, and law enforcement perspectives such actions may be reasonable, and citizens may applaud garrison state measures to meet unprecedented threats to homeland security. If history is a guide, however, such actions may not be appropriate in America because they tend to cede power to governments that are less than accountable. **JFQ**

WINNING ON THE GROUND

A Review Essay by
JOHN S. BROWN

Combined Arms Warfare in the Twentieth Century
by Jonathan M. House
Lawrence, Kansas: University Press of Kansas, 2001
364 pp. $19.95
[ISBN: 0–7006–1081–2]

Clash of Arms: How the Allies Won in Normandy
by Russell A. Hart
Boulder, Colorado: Lynne Rienner Publishers, 2001
468 pp. $79.95
[ISBN: 1–5558–7947–0]

Many think that timing is everything. Thus, in an age of the Quadrennial Defense Review, military transformation, and the global war on terrorism it is opportune to find two thoughtful and insightful books, *Combined Arms Warfare in the Twentieth Century* by Jonathan M. House and *Clash of Arms: How the Allies Won in Normandy* by Russell A. Hart. The first volume argues in favor of preserving balance when tempted by simpler, cheaper, or more expedient tactical solutions; and the second is a cautionary tale on believing that one has arrived at the ultimate tactical solution and that no further creativity is required.

Colonel Jonathan House, USA (Ret.), is currently professor of history at Gordon College. After a brief introduction, he divides his account of combined arms into three phases: "The Triumph of Firepower, 1871–1939"; "Total War, 1939–1945"; and "Hot Wars and Cold, 1945–1990." Each part begins with a vignette introducing themes: the Mexican punitive expedition (1916), the battle of Saint-Vith (1944), and Task Force Smith (1950). Drawing on various experiences (American, German, Israeli, and Russian), the author analyzes the balances between firepower and maneuver, teamwork and synergy, and branches/services and the virtues of generalization/specialization.

Starting with early modern formulas for synchronizing infantry, cavalry, and

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field artillery, *Combined Arms Warfare in the Twentieth Century* covers two eras of change in technology: mass-produced rifled weapons, railroads, and telegraphy (as exhibited in the American Civil War and the Franco-Prussian War) and smokeless powder, repeating rifles, recoiling artillery, machine guns, and the internal combustion engine (which was not fully appreciated in 1914). House begins his study with World War I, teasing tactical lessons from that bloody conflict.

A popular impression of the Great War is that tensions between commanders who sought victory through maneuver and those who preferred overwhelming firepower shifted in favor of the latter—an impasse broken only by the development of tanks and fighter bombers in World War II. House reveals that the situation was more complex, with ample opportunity for restoring maneuver in the Persian Gulf War. Moreover, he suggests that the advocates of decisive maneuver achieved no permanent victories; advanced nations are vulnerable to a siren song that incremental advances in range or precision will win wars without unnecessary violence. Indeed, such a strain was heard recently in the Quadrennial Defense Review.

Successful maneuver in the face of modern firepower has required appreciable teamwork. The suppressive consequences of artillery, fluid infiltration of infantry, tactical mobility of armor, and speed in application of aircraft played a role in enabling maneuver with decisive effect—as did the logistic capability to sustain those assets. But it is not sufficient to have a cerebral appreciation of the way such forces fit together. One must institutionalize these relationships, define respective roles in a coherent doctrine, and train units to execute doctrine in the stress of battle. The strength of this rationale is not only the attention needed to make it happen in concept, but also how to make it happen in practice. House does not ignore past failures. The Pentomic division, for example, is duly addressed and provides a warning against radical organizational changes which are dependent on unrealized technological advances.

Teamwork begs the question of specialization in a complex military. How large must units be to achieve economies of scale? How many specialties and kinds of equipment can one leader manage? On what level is a combination of arms most efficient? On what level do joint operations become practical? The

increasing complexity of warfare has reduced the proportion of combatants to those who support them—the celebrated tooth to tail ratio.

After a long view presented by House, *Clash of Arms: How the Allies Won in Normandy* by Russell Hart offers a case study of the arms and services in Britain, Canada, Germany, and the United States and their performance in a single campaign. The author is assistant professor and specialist in modern military history at Hawaii Pacific University. More than a survey of tactics, Hart assesses the operational effectiveness of four armies throughout the campaign and the origins and causes of their relative successes. He progresses in three phases. First, Hart describes the long-term evolution of these armies before the Normandy invasion during the interwar period, then includes a chapter on each that covers the events of 1939–44. Second, after a campaign overview, he reviews their performance in Normandy from June to August 1944. Finally, he provides a wrap up in a ten-page conclusion that is worth the price of the book.

Regarding the militaries of the interwar years, *Clash of Arms* portrays Germany as focused, innovative, and ultimately sufficient in resources, and Britain as distracted, hostile to change, and gravely understrength. In the United States, the Army was woefully unprepared—while the Army Air Corps and Navy were somewhat less so—but the intellectual vitality and technical innovation of the officer corps nurtured the potential for wartime growth. Canada succumbed to antimilitarism altogether and totally neglected defense readiness.

Hart finds that the interwar-year patterns played out. The Germans were combat effective at the start and got better between 1939 and 1942. By 1944, despite horrid losses in both East and West, they sustained a qualitative edge overall. The British had difficulty shedding their colonial distractions and settling on coherent doctrine. They were also averse to self-criticism. Ironically, they learned more from their success than failure. The Americans entered the war with an adequate doctrinal and technical base and a heartfelt commitment to total mobilization followed by total war, though their practical experience was initially meager. By Normandy they had braved appreciable combat in the Pacific, North Africa, and the Mediterranean and demonstrated an inclination toward self-criticism, adaptation, and appropriate transformation. Canada, not geographically threatened, remained sluggish in its

preparations and had not accrued much combat experience even by D-Day. In fact, only 2 percent of the Canadian troops slated for Overlord had ever been in action.

None of the armies that met at Normandy were truly prepared according to Hart. Germany had never endured as much firepower or airpower, with consequent implications for their defenses and mobility. And while the Allies had thought through the landing and war of maneuver that was to follow, they had not anticipated the struggle to cut through *bocage* to maneuver. German forces adapted in the face of enemy firepower through greater dispersion and hostile airpower by moving at night or in inclement weather. Anglo-Canadian forces tried to break through enemy defenses by unsubtle attritional attacks based on overwhelming firepower.

While this approach was intended to minimize friendly casualties, it limited progress because huge amounts of artillery ammunition had to be stocked prior to advances on the ground. The Americans, on the other hand, were deliberate and innovative, developing company-level tactics to penetrate the thickets, balancing firepower with decisive efforts at maneuver, and steadily integrating branches and services. Ultimately, qualitative differences between Americans and Germans disappeared whereas quantitative differences did not. U.S. forces swept through France in an overwhelming triumph.

Hart notes that ideology degraded German esprit at Normandy by promoting the belief that racially pure Aryans (and near-Aryan Anglo-Saxons) were better fighters than mongrel Americans. Germany underestimated the U.S. military until it was too late. The aftermath of Operation Cobra inflicted a serious wound from which *Westheer* would never really recover.

Combined Arms Warfare and *Clash of Arms* should be read by students of military history. Both are well written and thoughtful. In the face of doctrinal ferment today, House persuasively advocates balanced capabilities and Hart examines never-ending adaptation to cope with an enemy that adapts itself. These perspectives are timely and important.   **JFQ**

THE CRAFT OF STRATEGIC LEADERSHIP

A Book Review by
SUZANNE NIELSEN

According to reports in the press, *Supreme Command: Soldiers, Statesmen, and Leadership in Wartime* made the President's summer reading list for his vacation in Crawford, Texas. This major work on the civil-military relations in wartime should be read by officers of all services, especially senior leadership. Its author, Eliot Cohen, teaches strategic studies in the Paul H. Nitze School of Advanced International Studies at The Johns Hopkins University.

Cohen starts his analysis by considering the *normal theory* of civil-military relations, which he argues dominates thinking on the role of American leaders in military strategy and operations. This theory holds that political leaders should declare war, set objectives, and marshal resources, but otherwise not meddle in military affairs. He looks at four wartime leaders—Abraham Lincoln, Georges Clemenceau, Winston Churchill, and David Ben-Gurion—and concludes that the normal theory is wrong. [For a companion article by Eliot Cohen, see *JFQ*, issue 31 (Summer 02).]

These four statesmen were involved in matters of military technology, campaign planning, and even tactics. Furthermore, they actively managed both the selection and relief of senior officers. And, as Cohen points out, they would engage in energetic and persistent questioning as a means of conducting "a continuous audit of the military's judgment." But their approach did not hamper the war effort. Instead, in his treatment of these national leaders, Cohen makes a convincing case that

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David Ben-Gurion.

their engagement in military planning and operations was vital to victory.

Clausewitz is credited by Cohen with articulating the reason for the crucial involvement of political leaders in wartime. To achieve strategic coherence, military means must always support political ends, which provides the logic of war. Statesmen, not soldiers, are ultimately responsible for that coherence. In a passage which is not found in *Supreme Command*, Clausewitz argues that policy "will permeate all military operations, and . . . it will have a continuous influence on them." This can apply on all levels of military activity; even tactical questions have political ramifications. There is no clear line beyond which the political leader ought not get involved in military affairs; it is an issue of judgment, not principle.

But Cohen overemphasizes the limits of professional military expertise while highlighting the insight of statesmen. For example, he suggests that the "massive common sense" exhibited by Churchill is what "Clausewitz described as the bedrock of military genius." This seems a stretch, for Clausewitz posited that military genius consisted in "gifts of intellect and temperament" matured through long experience in the field. Certainly one can argue that Churchill was a great statesman and strategist without bestowing the mantle of military genius on him.

The significance that Cohen assigns to the military knowledge of these four wartime leaders almost detracts from his central argument. It is essential that statesmen maintain firm control over strategy and operations whether or not they are knowledgeable in military affairs. Political leaders must maintain such control because only they have the national perspective, ultimate responsibility for safeguarding interests, and authority to make decisions. One example in *Supreme Command* underscores this point. In 1861, military advisors recommended to Lincoln that Fort Sumter not be resupplied. But the President believed that as a target the fort was too attractive for the South to ignore. Thus he decided against military advice to resupply because he appreciated the importance of having the rebels strike the first blow. Lincoln's political judgment and national perspective were essential, not his military knowledge.

Although Clausewitz argues that "a certain grasp of military affairs is vital for those in charge of general policy," he clarifies that "What is needed in the post [head of state or minister of war] is distinguished intellect and strength of character. He can always get the necessary military information somewhere. . . ." The other qualities that great statesmen shared were probably more important. Cohen lists them as intuition, relating detail to grand themes, identifying what is new, gathering a broad range of views, picking the right subordinates, determination, mastery of the spoken and written word, and a combination of moderation, ruthlessness, and courage.

Recognizing that some may find an examination of only great statesmen awkward, Cohen adds a chapter on "Leadership Without Genius." He finds it equally important for leaders lacking the attributes of Lincoln or Churchill to maintain active control over military strategy and use of force. He finds fault with Presidents in the 1990s who did not maintain this control. This discussion of the U.S. experience raises several interesting issues. First, Cohen distinguishes between policy formulation and implementation, implying that the former is the exclusive province of political leaders. While this perspective has merit, no clear line of separation is possible with military policy. Policy formulation at a minimum requires input as to available military means. One can accept with Clausewitz that "the political aims are the business of the government alone" while still seeing a role for military officers.

A second issue is the relationship between national strategy and national

military strategy. In *Supreme Command*, Cohen argues that political leaders are responsible for ensuring that national military strategy supports political ends. But that is only one part of the story. To be an effective strategist, the political leader must use the instruments of national power—diplomatic, economic, and informational as well as military—in support of national interests. His authority to leverage such means is another reason for the statesman to occupy the driver's seat. (A companion work to Cohen's book needs to be written on the role of national leaders in crafting comprehensive strategy that not only has won wars, but also helped win the peace that followed.)

Supreme Command challenges military and political leaders alike. For the military leader, the challenge is understanding the basic subordination of their profession to the political ends it serves. For the political leader who must resort to the use of force, the challenge is remaining engaged to ensure that military means support political ends. A useful starting point for political and military leaders would be respect for each other's roles.   **JFQ**

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REORGANIZING DEFENSE

A Book Review by
RUSSELL HOWARD

Victory on the Potomac: The Goldwater-Nichols Act Unifies the Pentagon
by James R. Locher III
College Station, Texas: Texas A&M University Press, 2002.
507 pp. $34.95
[ISBN: 1–58544–187–2]

A significant contribution to the literature on defense organization and bureaucratic politics, *Victory on the Potomac* offers a graphic account of the need for reform and the struggle to achieve it against the state of military readiness in the 1970s and 1980s. Writing as an insider, James Locher presents a fast-paced chronicle of the passage of the Goldwater-Nichols DOD Reorganization Act of 1986—the most important defense legislation since the National Security Act of 1947. The book is must reading for decisionmakers, planners, and others responsible for defense policy and military strategy. Academics will also find much of interest in what is probably the best study of bureaucratic politics in the Pentagon since Graham Allison dissected the Cuban Missile Crisis.

Like a war plan, *Victory on the Potomac* describes the prelude to conflict, the battles waged, and the road to victory. In the first part of the book ("The Fog of Defense Organization"), Locher explains the need for reorganization to get the services to work more closely together. According to the author, after World War II the Armed Forces achieved overwhelming influence that was out of proportion to their statutory and formal responsibilities. Service priorities were protecting turf rather than developing multi-service commands to wage modern war. The results were the Bay of Pigs, Desert One, and the terrorist attack on the Marine Barracks in Beirut.

In the next part ("Drawing the Battle Lines"), Locher focuses on the Beirut bombing as the greatest impetus for defense reorganization. In October 1983, a "lone terrorist drove a truck laden with

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explosives into the lobby of the Marine barracks, triggering one of the biggest nonnuclear detonations ever. . . .The blast collapsed the four-story building into a smoldering heap of rubble no more than fifteen feet high and burned, crushed, or smothered to death 220 Marines, 18 sailors, 3 soldiers, a French paratrooper, and a Lebanese civilian." He stresses that interservice rivalry and a "bloated and paralyzed" command structure were just as responsible as the bomber.

As chairman of the Investigations Subcommittee of the House Armed Services Committee, Congressman Bill Nichols studied the disaster and became convinced of the need for reform. "No member who took part in that investigation will ever forget it; the magnitude of the tragedy . . . seared our consciousness indelibly." It became his issue, "and he was committed to correcting the organizational defects that had contributed to 241 deaths in Beirut."

Senator Barry Goldwater was also interested in defense reform, especially after becoming the chairman of the Senate Armed Services Committee in 1985. A retired major general in the Air Force Reserve, he was greatly disturbed by the debacle in Lebanon: "The fault was in the Pentagon command structure. The cumbersome chain of command imposed on the general [in charge] by the Joint Chiefs of Staff and the services precluded effective control." The outrage that Goldwater voiced over the convoluted chain of command and its contribution to this horrible tragedy would motivate his quest for military reform in the years after the bombing.

But strong personal commitments on the part of Goldwater and Nichols were not sufficient to ensure defense reorganization. As the title of the third part of the book ("Marshalling Forces") indicates, Congress moved forward only after bitter political wrangling and bureaucratic infighting. Key to passing the Senate version of the bill was the close relationship between Barry Goldwater and Sam Nunn. As the principal staffer working on this legislation, Locher gained unique insights into the character and motives of both men. Although they came from different sides of the aisle, both had strong conservative, pro-defense credentials that helped forge an unusual partnership.

Goldwater was bold, almost reckless. Nunn was cautious, almost too careful. Goldwater made up his mind quickly. Nunn decided slowly. Goldwater relied on instinct and feel. Nunn depended on hard work and superior

information. Their opposite characteristics complicated the work of opponents. Nunn could outthink you. Goldwater could out-shoot you. Nunn could remain cool while Goldwater flashed his temper. Their opponents had to prepare for both Nunn's proficient jabs and Goldwater's knockout punch.

Reorganization was opposed by most members of the Joint Chiefs who served during the Carter and Reagan years (with notable exceptions like General Edward Meyer, USA), the service secretaries, and the Secretary of Defense, Caspar Weinberger. One particularly formidable enemy of reform was the Secretary of the Navy, John Lehman, who upheld the time-honored traditions of service autonomy. In implementing the National Security Act of 1947, James Forrestal, who was the Secretary of the Navy and subsequently the first Secretary of Defense, contested the efforts to reign in the services and achieve unification. Lehman also sought to stymie reorganization and had good reason to be optimistic: "In fourteen years in government, Lehman had never lost a big fight. His genius for bureaucratic politics enabled his extraordinary success." With that record, he took on Nichols in the House and Goldwater and Nunn in the Senate—and to his ultimate suprise lost.

The final part of the book ("Marching to Victory") highlights the value of a campaign plan and importance of sticking to it. Battles over Goldwater-Nichols were fought in hearing rooms, the press, and behind-the-scenes exchanges across Washington. Political figures like Dan Quayle, Gary Hart, Pete Wilson, and John Glenn appear throughout the narrative. John Warner receives praise, though he led the opposition to reform at the outset of the hearings: "Warner was a true gentleman. . . . He worked hard to see the other side's point of view and find common ground for reconciliation." By contrast, many prominent officers, including former chairmen such as General John Vessey, USA (Ret.), and Admiral Thomas Moorer, USN (Ret.), argued that very few if any of the 79 recommendations contained in the Senate version of the bill were acceptable.

The depiction of defense reorganization found in *Victory on the Potomac* resonates strongly in the realities of the post-9/11 world. As the Nation responds to new challenges, it may be time to revisit the National Security Act of 1947 and reconsider defense organization in order to build on the foundation of the Goldwater-Nichols Act. **JFQ**

NATIONAL WILL AND MILITARY READINESS

A Book Review by
ROBERT H. FERRELL

While America Sleeps: Self-Delusion, Military Weakness, and the Threat to Peace Today
by Donald Kagan and Frederick W. Kagan
New York: St. Martin's Press, 2000
483 pp. $32.50
[ISBN: 0–312–20624–0]

The authors of *While America Sleeps: Self-Delusion, Military Weakness, and the Threat to Peace Today* compare the errors in British policy in the 1920s with those of America in the 1990s. But the issue is whether the experience of Great Britain fits the situation of the United States over the last decade and—notwithstanding the basic analogy—what to do about current military posture. The two authors of this book, Donald Kagan and Frederick W. Kagan, are *pere et fils* and both academic historians: the senior at Yale and the junior at West Point

Britain during the interwar years does not seem to mirror the United States in recent years. British losses in France totalled nearly a million in World War I. Every public square and church in the country had long rolls of the dead. The army of regulars which went to war was sacrificed, only to be followed by a conscript force, the so-called new army, which was lost with almost equal recklessness. Generals who supervised this carnage probably did their best, but they were foolish in throwing their men against machine guns and artillery. The Royal Navy had reversals as well, with Jutland in 1916 hardly constituting a victory because of the loss of battle cruisers, those thin-skinned ships that looked fine in prewar naval reviews but could not stand up to German gunnery. All the while the financial capital accumulated in the century of peace after the defeat of Napoleon in 1815 was slipping away, with the proof appearing during the 1920s when reversion to the gold standard (with the pound established at five dollars) provided an appalling testimony to futility and financial ignorance that

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was almost equivalent to the military ignorance which preceded it.

These developments provided the background for almost endless debate within the Foreign Office during the 1920s and for various cabinets to accept that the nation was not what it once was after Passiondale and wartime spending. In these deprived circumstances, these cabinets attempted to defend the homeland and Empire largely through maritime power while letting the army dwindle to virtually nothing. There was endless debate over whether the Royal Navy needed as many ships as the United States. Time was squandered in arid argument over the merits of large versus small cruisers, this because America possessed few light cruisers and wanted to construct as many heavy cruisers as possible. Meanwhile, British governments in the 1920s refused to support France and sought to placate Germany. The Great Depression, which began in 1929, became a nightmare for the working classes, and the Whitehall policies of the 1920s, which had little substance, collapsed. In the ensuing chaos Hitler came to power in Germany, leading to the denouement in 1939.

While America Sleeps describes the deteriorating condition of Britain in considerable detail. The authors have searched the archives to set out military and diplomatic exchanges, aide-memoirs, and cabinet decisions, but they only draw on an abject lesson in bad policy despite including some interesting novelties. There is not much else to discover in view of British weakness.

Although the authors chose the 1920s for analysis, they could have looked at other periods and found decline, when British foreign policy made brave efforts and stentorian pronouncements to cover military weaknesses. For instance, the Empire was the envy of the world the 1880s, but it was a period when Charles Gordon was besieged at Khartoum. The general and his small garrison looked north and could see smoke from steamers with troops coming to their relief, but the vessels could not relieve the siege by the dervishes of the Mahdi. Thus Gordon stood on the staircase of the governor's palace in full uniform as a dervish ran him through. It was impossible for Britain to avenge Gordon until 1898 when Horatio Kitchener took an army to the Sudan and brought it under imperial control. He was grand in defending the Empire, instructing his soldiers on how to rebuild the ruins of Khartoum. As for the street plan, "Lay it out like the Union

Jack," Kitchener ordered, an arrangement that had the advantage of commanding the city with artillery. And yet grandness at the height of the Empire was not enough, as years of fierce rule by the Mahdi demonstrated.

Another example is construction of the new navy following the launching of the all-big-gun *Dreadnought* at the turn of the last century. The new battle cruisers were badly built, and British industry was being surpassed by Germany. Like the 1880s and 1890s, the ensuing period up to 1914 witnessed foolish assertion in foreign policy and increasing ineptitude in military affairs.

Against the errors of the 1920s, the American experience in the 1990s does not appear to be analogous. During the Clinton administration, military planners were bewildered by the reality that the Nation was the only superpower, unsure of what to do in places like the Balkans and uncertain of how to deal with NATO after the Soviet Union. This situation is not similar to the experience of Britain in the 1920s. Whatever the errors in America during the 1990s, they were not preceded by an enormous bloodletting—Vietnam was a sideshow compared to British losses in 1914–18. Nor was the American economy depressed like the 1920s; indeed it had never been stronger.

Aside from that analogy, the Kagans are outspoken in disparaging U.S. military posture in the 1990s, yet stop short of specific recommendations. *While America Sleeps* sets out the apparent failures such as Somalia, Haiti, and Kosovo. Yet other issues are more specific: attracting quality people to the Armed Forces without public support for a draft; the need for equipment to train the force in realistic exercises; using the hardware on hand instead of opting for new aircraft or another $5 billion carrier; closing small bases; and dramatically reducing the number of flag officers since the services are virtually as officer-heavy as they were during World War II.

Much analysis of the United States today is no doubt affected by the events of 9/11, with overwhelming public support for defensive measures necessary to win the global war on terrorism. Nothing like this groundswell took place in Britain in the 1920s. **JFQ**

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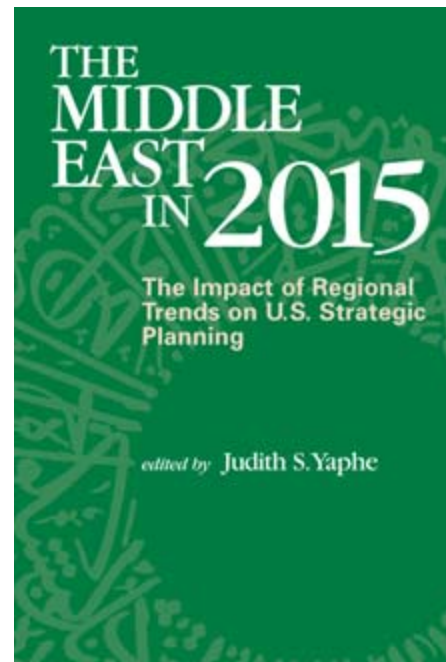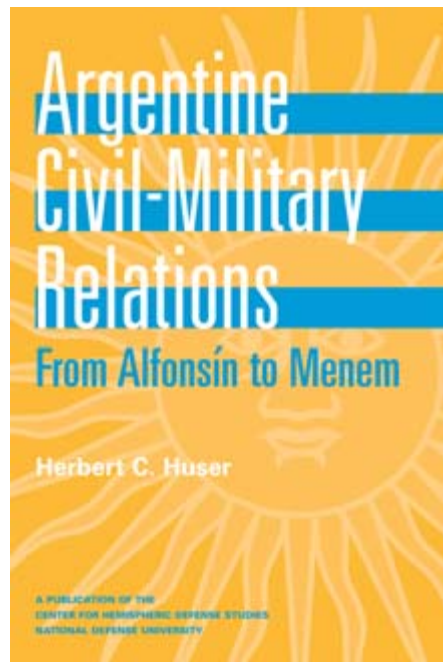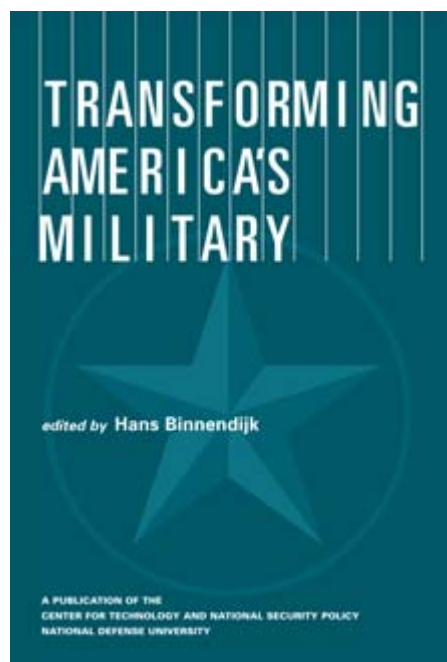
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